

**STATE MULTINATIONALS:
THE IMPACT OF STATE OWNERSHIP ON INTERNATIONAL
DIVERSIFICATION AND FIRM PERFORMANCE**

A Dissertation

by

XIAOMING HE

Submitted to the Office of Graduate Studies of
Texas A&M University
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

August 2010

Major Subject: Management

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Chair of Committee: Lorraine Eden

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ABSTRACT

State Multinationals: The Impact of State Ownership on International Diversification
and Firm Performance. (August 2010)

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State multinationals were investigated in the 1980s. Since then, little work on the state multinational has been done because of the dramatic changes in the world in terms of both politics and economics, such as the waves of liberalization, deregulation and privatization. However, in the current global environment, we see the increase in the number of state multinationals, and thus initiate research of this study.

This study investigates two sets of research questions. First, is the state multinational the overlap of two organizational forms (the state owned enterprise (SOE) and the multinational enterprise (MNE))? If so, what are the key characteristics and implications of the state multinational? Second, can the state multinational be considered a hybrid organizational form, which is different from that of its parents? Propositions are set forth to examine the first set of research questions. After clarifying the unit of analysis for this study, the second set of questions asks how state ownership influences the state multinational's international diversification and firm performance, and what is

the impact of institutional ownership on the state ownership—international diversification relationship, and how home country institutional environments influence the proposed relationships. Hypotheses are proposed to investigate the second set of research questions and are tested with a three-year sample (2004-2007) and a seven year sample (2000-2007) of the state multinational.

Results of hierarchical linear models indicate that the state multinational, first, does have characteristics that are different from its parents (i.e., the SOE and the MNE) and thus is considered a hybrid organizational form. Second, state ownership may improve the level of the state multinational's international diversification, but reaches a threshold, after which the positive influence diminishes due to the prominent agency costs. Third, institutional ownership has been verified as a useful mechanism to improve the effectiveness of corporate governance in the case of the state multinational. Fourth, home country institutional environments matter in the studied relationships. The state multinational in developed countries with an established institutional environment may not depend on state ownership as much as those in developing and emerging countries.

Results also show the influence of state ownership on the state multinational's firm performance. The state ownership—performance relationship is also non-linear (inverted U-shaped). Moreover, in the case of the state multinational, the higher the level of international diversification, the higher the firm performance. In addition, international strategies of the state multinational function as a mediator for the relationship between state ownership and firm performance.

DEDICATION

To my parents and my daughter

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CHAPTER I

INTRODUCTION AND RESEARCH OBJECTIVES

Motivation

State owned enterprises (SOEs), that is, enterprises with at least 50 percent state ownership, flourished in the 1970s and 1980s. Some SOEs also engaged in value adding activities outside their home country, qualifying them at the same time as *multinational enterprises (MNEs)*. The group of *state multinationals (SMNEs)*, that is, multinational enterprises with at least 10 percent state ownership, tended to be industry specific; for example, state multinationals controlled the majority of world petroleum production and a large percentage of international petroleum trade in the 1970s (Aharoni & Seidler, 1986).

Little research was conducted on state multinationals until the 1980s (e.g., Anastassopoulos, Blanc, & Dusssauge, 1987; Mazzolini, 1980; Negandhi, Thomas, & Rao, 1986). In those days, state ownership was widely perceived to lead to inefficient, badly managed and excessively large firms with high agency costs (e.g., Aharoni & Seidler, 1986).

State multinationals, in addition, were seen as extensions of their home country governments; potential “Trojan horses” viewed suspiciously by host country nationals worried about extraterritorial activities being conducted through these firms (Vernon, 1977).

Little work on state multinationals has been done since then, perhaps because the world has changed dramatically in the last two decades in terms of both economics and politics. The waves of liberalization, privatization and deregulation that swept through Europe, Asia, Latin America and the former Soviet Union in the 1980s and 1990s significantly reduced the number of state owned enterprises. Markets in these countries are now dominated by private MNEs (Toninelli, 2000). As a result, scholars have paid little attention to state multinationals over the past 20 years. When conducting research on MNE activities, a few scholars have considered the international involvement of SOEs (e.g. Luo & Tung, 2007). However, there has been little recent research on the development of state multinationals.

The topic of state multinationals may be ready for a renaissance. More than two decades later, MNEs with some degree of state ownership exist as an energetic organizational form (Kikeri & Kolo, 2006). Many governments in emerging economies have been encouraging their state owned firms to become MNEs, for example, China’s “go global” policy (UNCTAD, 2006). Moreover, governments have, once again, used state ownership to stabilize their national economies. For instance, starting from 2008, many governments in both developed and developing and emerging economies fully or partially have nationalized or bailed out firms in the banking, finance and other

industries (e.g., automobiles) in an attempt to stave off the current financial crisis (Tabb, 2008; São, 2010). Thus, the number of state multinationals has been growing in the current global environment.

Research Questions

At the cusp of the second decade of the 21st century, how do state multinationals expand into foreign markets? Is the pejorative view of state enterprises, e.g. their inefficiencies and suspicions of extraterritorial activities, no longer appropriate? Should state multinationals now be viewed in a more positive light?

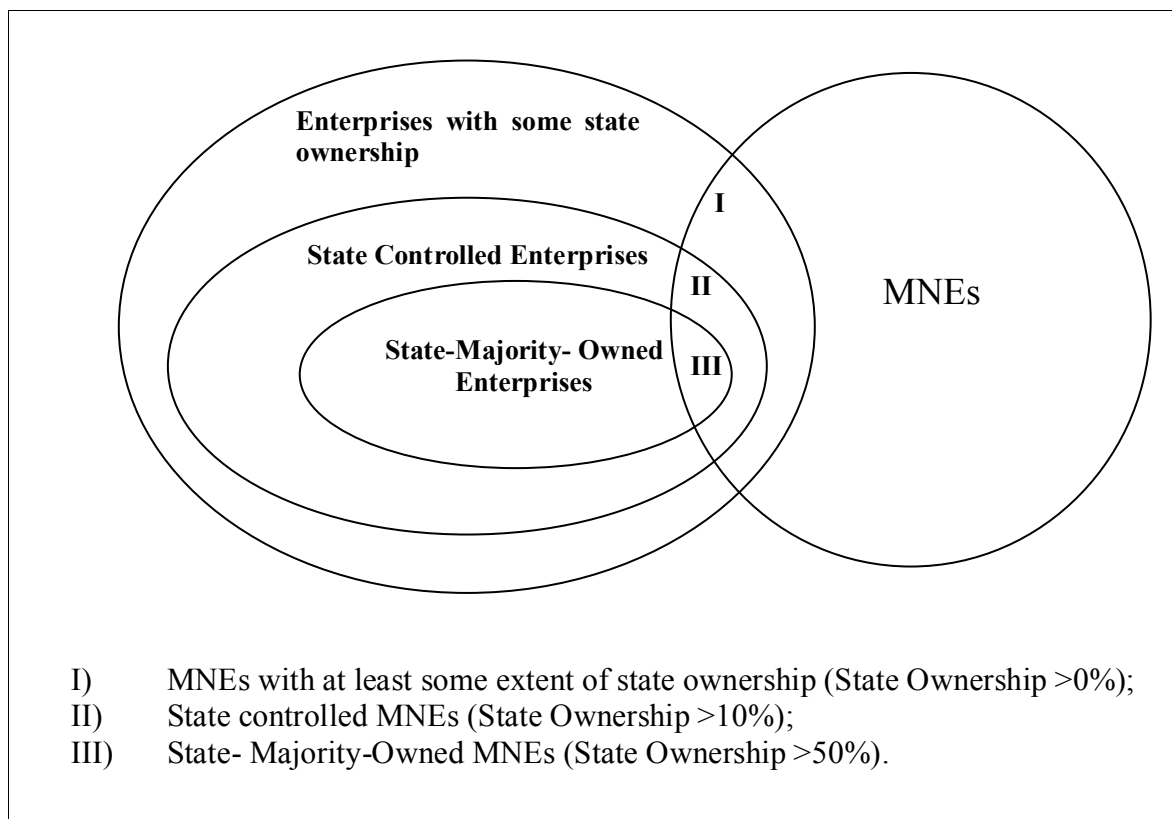
Before addressing these questions, I must first clarify the unit of analysis—the state multinational, which I argue is a hybrid organizational form drawing its characteristics from its “parents”: the state owned enterprise and the multinational enterprise.

An MNE with some percent of state ownership is the overlap of two organizational forms: SOE and MNE. The overlapping enterprise has specific characteristics that come from its SOE and MNE “parents”, which make the enterprise different from other forms of organizations. Thus, it is meaningful to consider the state multinational as a hybrid organizational form that has existed for several decades, which has its own unique characteristics, competences and strategies.

I argue that MNEs with state ownership should be separated into three categories depending on their degree of state involvement, as shown in Figure 1.1. The broadest category includes all multinational enterprises where at least some positive percent of

equity ownership is held by the state (State Ownership > 0%). This is the general “MNEs with state ownership” category. Within this group is a smaller category of multinationals that are controlled by the state. I assume a minimum of 10 percent equity ownership is needed to exercise some control; therefore, state controlled multinationals are MNEs with at least 10 percent state ownership (State Ownership > 10%). Within this group is the smallest category of MNEs where the majority of equity ownership is held by the state (State Ownership > 50%)¹. The greater the degree of state ownership, presumably, the greater the influence of the state is on the hybrid organization’s behavior.

Figure 1.1
Categories of MNEs with State Ownership



¹ The average state ownership in my final sample is 0.29 for 225 SMNEs.

In this dissertation, I define *a state multinational (SMNE)* as a multinational enterprise with at least 10 percent state ownership. The 10-percent cutoff is high enough that the state should have the ability to affect corporate governance and therefore firm performance. When the state equity share is less than 10 percent, I expect the government's holding to be similar to portfolio investment rather than direct investment; that is, the state is assumed to exercise minimal or no control over firm behavior.

Second, *multinationality* refers to the extent of a firm's business operations beyond national borders, that is, the firm's value adding activities outside of its home country (Vernon, 1971; Contractor, Kundu, & Hsu, 2003; Tseng, Tansuhaj, Hallagan, & McCullough, 2007). *International diversification* is "a strategy through which a firm expands the sales of its goods or services across the borders of global regions and countries into different geographic locations or markets" (Hitt, Ireland, & Hoskisson, 2009: 231). The two concepts used in this dissertation, "multinationality" and "international diversification", are often used interchangeably in the literature (Hitt, Tihanyi, Miller, & Connelly, 2006; Contractor et al., 2003; Tseng et al., 2007). In Chapter II, I adopt the breadth of an SMNE's international expansion (the number of foreign countries where the firm has subsidiaries) (Kogut & Singh, 1988; Reuer & Leiblein, 2000) to describe the degree of multinationality (DOM). My dataset consists of firms with a minimum DOM of owning at least 50 percent of at least one foreign subsidiary. In Chapter III, I use *international diversification* to describe the implementation of the firm's international strategies.

Using these core concepts, I develop two sets of research questions in my

dissertation that apply to my unit of analysis, the state multinational (SMNE). In Figure 1.2, there are two dimensions reflecting the two “parents” (i.e. SOE and MNE) of the SMNE hybrid organizational form: State Ownership and Multinationality. While the universe of state multinationals includes all (a) publicly and privately traded firms with (b) at least some degree of state ownership and (c) at least one foreign subunit, in my dissertation I restrict my study to (a) publicly traded firms with (b) at least 10 percent state ownership and (c) at least 50 percent ownership of at least one foreign subsidiary. By removing the extreme cases of minimal state ownership and minimal multinationality, I can focus my analysis on the bulk of publicly traded firms that are seen as state multinationals.

Figure 1.2
Research Focus

State Ownership	Multinationality	
	MNE	Non-MNE
(>10%)	<div style="display: flex; align-items: center;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">Focus of Chapter II</div> <div style="margin-left: 10px;"> <div style="background-color: #cccccc; padding: 5px; text-align: center;">Focus of Chapter III</div> </div> </div>	Extension 1
=0 (Private Ownership)		
(0, 10%)		

There are at least three different research directions that can be pursued in this dissertation, as illustrated in Figure 1.2. I focus on two directions and leave the other direction to post-dissertation research. My first focus is theoretically analyzing the SMNE in Figure 1.2 as a hybrid organizational form based on the comparison of MNEs

with and without state ownership (Chapter II). My second focus is empirically analyzing the light gray cell in Figure 1.2, that is, SMNEs, publicly traded firms with at least ten percent state ownership and at least one foreign subsidiary with at least 50 percent ownership (Chapter III). In later post-dissertation research, I intend to compare state controlled MNEs with non-MNEs (extension 1).

SOEs and MNEs are different organizational forms with different key features. For instance, SOEs are typically seen as domestic firms that focus on government objectives rather than firm interests (Lamont, 1979). In contrast, MNEs typically seen as operating in multiple countries and mainly profit oriented (Caves, 1996). Since SMNEs are the overlap of these two types of organizational forms, I expect the hybrid structure to have key features that draw from either of the SMNE's "parent" organizational forms. Given that specificity, I examine the key features of these organizational forms and propose the state multinational as a hybrid organizational form.

Research question 1: What are the key characteristics and implications of the hybrid organizational form, the state multinational?

After I answer the first research question, I present a research framework to explore factors that influence the SMNE's performance. These subsequent research directions are broader than I can address here. In this dissertation, I follow the strategic management and international business research streams, narrowing down my research topic to these potential research directions.

In this dissertation, I argue that both *State Ownership* and the *Home Country Environment* influence *International Diversification* of the state multinational. The

literature tells us that state ownership can affect firm performance (e.g., Luo, 1995; Zou & Adams, 2008). We know that state multinationals are generally influenced by the state when they make strategic decisions on corporate strategies such as international diversification (e.g., Anastassopoulos et al., 1987; Luo & Tung, 2007; Vernon, 1977). Depending on control over SMNEs, governments will intervene with SMNEs' operations and strategic decisions.

However, in the new global environment, whether and how state ownership influence the SMNE's performance has seldom been investigated. In this study, I investigate how changing the degree of state ownership affects corporate governance when firms compete in the global market. Thus, I focus on the influence of corporate governance mechanisms on the SMNE's international strategies and its performance.

Research question 2.1: How does the degree of state ownership influence the SMNE's international diversification in the new global environment?

Research question 2.2: How does the degree of state ownership affect the SMNE's firm performance in the new global environment?

Home country environmental characteristics, as one type of external environment factor, can influence SMNEs' strategic decisions and international expansion (Hitt et al., 2006b). For instance, Wan and Hoskisson (2003) find that munificence of the home country environment moderates the relationship between international diversification and firm performance.

Recognizing the importance of nationality (Hoskisson, Eden, Lau & Wright, 2000), I also investigate the influence of the home country environment on the state

ownership- international diversification relationship.

Research question 2.3: How does the home country environment influence the impact of state ownership on international diversification of SMNEs?

Figure 1.3 offers a summary of the research questions investigated in this dissertation.

Figure 1.4 provides an outline of the research framework for my dissertation. I first investigate the characteristics and implications of the SMNE as a hybrid organizational form. I then examine the implications of state ownership for the SMNE's international diversification strategy and performance. Lastly, I examine the effects of the home country environment as a moderator of the state ownership-international diversification relationship.

Figure 1.3
Research Questions

Chapter II: SMNE as a Hybrid Organizational Form

Research Question 1: What are the key characteristics and implications of the hybrid organizational form, the state multinational?



Chapter III: The Influence of state ownership on international diversification and firm performance

Research Question 2.1: How does the degree of state ownership influence the SMNE's international diversification in the new global environment?

Research Question 2.2: How does the degree of state ownership affect the SMNE's firm performance in the new global environment?

Research Question 2.3: How does home country institutional environment influence the impact of state ownership on international diversification of SMNEs?

Hierarchical Linear Modeling (HLM) technique is appropriate to test my hypotheses. I test my hypotheses on the “all SMNE” sample for Hypotheses 1a, 2a, 3, 4 and 5 proposed in Chapter III. Next, to test Hypotheses 1b and 2b proposed in Chapter III, I break down my sample into two groups: SMNEs from developing and emerging countries and SMNEs from developed countries and examine the differences in institutional environments between these country groups. This allows me to investigate how home country institutional environment affects the state ownership—international diversification relationship.

Contributions of the Study

This study contributes to our understanding of state multinationals. First, the argument that the SMNE is a unique organizational form enriches organization theory. It has been argued elsewhere that the MNE is a specific organizational form (Caves, 1996; Westney, 1993; Westney & Zaheer, 2009) as is the SOE (Aharoni, 1986; Lamont, 1979; Mazzolini, 1979; McMillan, 1987). As the overlap of these two forms, the state multinational differs from each “parent” in terms of its key elements, such as organizational structure, corporate governance, external environment, and strategies and organizational change. Thus, the acknowledgement of this organization form adds new content to organization theory.

Second, the present study contributes to the agency theory literature in several ways. Agency theory examines agency problems due to the conflicting interests between owners and managers and suggests mechanisms (i.e. independence of board of directors,

equity structure and the market for corporate control) to minimize those agency problems (Berle & Means, 1932; Fama & Jensen, 1983; Jensen & Meckling, 1976). The study extends agency theory by incorporating a type of ownership: state ownership. One of the main weaknesses of agency theory is that the economic roots of simplifying assumptions (e.g. self interest of human beings) do not allow the consideration of other types of investors. However, strategic management has more practical and more complex contexts, such as wide-spread private and family-owned companies (Lubatkin, Lane, & Schulze, 2001). By investigating the influence of state ownership, this study enriches agency theory by considering the specific ownership structure and makes agency theory more generalizable to other types of investors.

Third, the study extends agency theory by examining the influence of state ownership on SMNEs' international diversification, which introduces an international context to the work on firms with state ownership. State ownership has seldom been investigated in studies on MNEs. This study fills this gap in the literature and helps to understand the effects of state ownership on international expansion of a firm.

Fourth, the study enriches agency theory by investigating the mediation effect of international diversification on the state ownership--firm performance relationship rather than the direct relationships between the two. The mediation effect has seldom been investigated in the literature, while the influence of ownership on international diversification (e.g., Tihanyi, Johnson, Hoskisson, & Hitt, 2003), the influence of international diversification on performance (e.g., Hitt, Hoskisson, & Kim, 1997), the influence of ownership on performance (e.g., Dalton, Daily, Certo, & Roengpitya, 2003)

have been well examined in the literature. Thus, this study builds relationships between those constructs (i.e., ownership, international diversification, and performance) and contributes to the agency theory literature by suggesting an input (state ownership) – process (international diversification) -output (firm performance) framework.

Lastly, examination of the home country environment, especially the institutional environment, on the state multinational's strategy and performance enriches our understanding of institutions. Institutional theory is widely used by international business scholars and useful for conducting cross-country studies (Hoskisson, et al., 2000; Peng, Wang, & Jiang, 2008). However, researchers have primarily focused on the influence of the host country environment (Galan, Gonzalez-Benito, Zuniga-Vincente, 2007; Hall & Jones, 1999; Khanna & Palepu, 2000). While the home country institutional environment clearly matters (OECD, 2002; UNCTAD, 2006), little work has been done from the home country perspective (Wan & Hoskisson, 2003). Thus, this study contributes to the literature on institutional analysis.

In conclusion, this study contributes to the strategic management literature by enriching organization theory that the SMNE is a hybrid organizational form and by extending agency theory through the incorporation of state ownership and the introduction of an international context for analysis. Moreover, this study contributes to the international business studies by investigating the influence of the home country institutional environment on the SMNE's international expansion.

Organization of the Dissertation

The remainder of this dissertation is organized as follows. In Chapter II, a review of MNEs and SOEs as organizational forms is conducted before proposing that the SMNE is a hybrid organizational form. Based on a comparison of key features, I outline the unique attributes of the state multinational as an organizational form. In Chapter III, a theoretical framework explaining the influence of state ownership on the state MNE's international strategy and firm performance is developed. I also incorporate the dimension of nationality and emphasize the importance of the home country's institutional environment when investigating the state ownership-international diversification relationship. Chapter IV describes the research methods, sample selection, measures, as well as adopted statistical techniques. Chapter V presents the results of the empirical tests for the hypotheses generated in Chapter III. Chapter VI displays discussion of the results reported in Chapter V. The dissertation ends with Chapter VII on implications of research and practices as well as limitations of this study.

CHAPTER II

THE STATE MULTINATIONAL AS A HYBRID ORGANIZATIONAL FORM

Introduction

This chapter reviews and compares the characteristics of state owned enterprises (SOEs) and multinational enterprises (MNEs) as organizational forms. I then develop the state multinational (SMNE) as a hybrid organizational form derived from the characteristics of its parents, the SOE and the MNE. I propose a tentative typology of state multinationals and present five examples to illustrate these cases.

Next, I argue that the international environment facing SMNEs changed significantly around the turn of the millennium. I compare the old environment (pre-2000) and the new environment (post-2000) and then illustrate the change in types of SMNEs from the 20th century to the 21st century. Based on the SOE-MNE comparison, I further identify the unique features of state multinationals in both time periods and suggest propositions to distinguish today's state multinationals from MNEs.

I conclude that my unit of analysis of this dissertation, the state multinational (SMNE) exists as a hybrid organizational form.

The SOE as an Organizational Form

Historical Background

A state owned enterprise is an enterprise that is established by a government to perform economic activities representing the government's objectives (Aharoni, 1986).

The essential characteristic of an SOE as an organizational form is it is owned by a government and undertakes operations and take strategic actions on behalf of the government for national objectives (Anastassopoulos et al., 1987). Thus, the state strongly influences managerial incentives and resource allocations within state owned enterprises (Park, Li, & Tse, 2006). Subsequently, SOEs' goals, corporate governance, organizational structure and external environment, strategies and outcomes, are different from other forms of organizations.

State owned enterprises have been around for a long time. In continental Europe, SOEs came into existence before World War II as a response by governments to confronting economic difficulties; SOEs prospered during the rest of 20th century because of the post-war industrial reconstruction. After World War II, SOEs grew rapidly in terms of size, scope and importance in Canada, Europe and Japan. SOEs continued to grow within European countries until the 1980s. In developing countries such as Brazil, India and Mexico, SOEs were formed with the goal of catching up to the rich countries in economic and social development (Negandhi, Thomas & Emmons, 1986).

SOEs were dominant in a variety of industries such as natural monopolies, high tech industries, declining industries, and strategic industries (Thomas, 1986). Moreover, state owned enterprises were often monopolies in key industries such as railways and telecommunications where economies of scale were so large relative to the size of the market that natural monopolies emerged (Negandhi et al., 1986b).

The privatization wave, which started under U.K. Prime Minister Thatcher and U.S. President Reagan around 1980, represented the first break in the long history of

SOE expansion in the 20th century (Aharoni & Seidler, 1986). Privatization is ‘the transfer from the public to the private sector of entitlements to residual profits from operating an enterprise, coupled with any accompanying changes in regulatory policy’ (Yarrow, 1986: 325). Privatization was adopted by many nations in Europe, Asia, Africa and Latin America to improve their economic development (Zahra, Ireland, Gutierrez & Hitt, 2000). Through privatization, government released control on SOEs by withdrawing the high stake in SOEs, resulting in organizational transformations (Zahra et al., 2000a).

After two decades of privatization, only a few industries now exist that are still mainly state owned or controlled such as aerospace for national security, infrastructure, finance, and energy and state ownership has been substantially reduced in national economies (Kikeri & Kolo, 2006). However, the contribution of SOEs to national economies is still large, particularly in strategic sectors, such as raw materials, petrochemical, telecommunications, and banking (Ralston Terpstra-Tong, Terpstra, Wang & Egri, 2006).

Below, I reviewed the key features of SOEs as an organizational form. The characteristics of individual SOEs, of course, are likely to differ from those described below. However, these characteristics are reasonable descriptions of the key features of the MNE as an organizational form.

Goals

The state owned enterprise is an instrument of national objectives. SOEs were created typically as the result of government goals rather than the economic goals (profit

maximization) that motivate private enterprises (Anastassopoulos et al., 1987). Negandhi & Ganguly (1986) argued that, over the years, the state has had several different motivations for creating an SOE: “a political rationale, a desire to control a strategic industry vital to national security or independence, a desire to redistribute income, a desire to rescue troubled industries, a desire to promote exports, a desire to promote industrialization” (p14), and an ideological commitment.

There are several typical reasons why governments create state owned enterprises. First, SOEs are adopted to control certain key sectors that are too important to be left in the hands of private sector (e.g. for the national security). Second, SOEs are adopted to fill gaps left open by the private sector (e.g. collective consumer goods and high-technology or research activities). Third, SOEs are adopted to rescue operations that involve many employees, or that may significantly affect the stability of a national economy, such as high technology firms and banks (Mazzolini, 1979). Thus, governments have used SOEs to stimulate economic growth and innovative activities, leading to more employment and more social welfare when resources were limited and needed reconstruction (Toninelli, 2000).

Therefore, state owned enterprise is a socioeconomic organization that is not profit oriented, but organized for government objectives, e.g. more employment and output (Rao & Tagat, 1986) as well as more taxes and additional investment (Lamont, 1979).

Corporate Governance

Corporate governance is “the set of mechanisms used to manage the relationship

among stakeholders and to determine and control the strategic direction and performance of organizations” (Hitt et al., 2009: 276). When I review corporate governance of the SOE, I analyze the internal conflict of interests, the level of management autonomy, the commitment of the SOE and the key personnel appointment within the SOE.

The relationship between the state and SOEs manifests the conflict of interests due to divided loyalties. Divided loyalties are caused when SOEs’ interests are not consistent with the state’s interests (You, 1998). Conflict of interests between the state and SOEs leads to an opposition of objectives, a low level of power, and autonomy (in pricing, investment, and human resource management), supervision and control (McMillan, 1987). In SOEs, because managers lack incentives and are poorly monitored, subsequent agency conflict generally leads to inefficiency (Vickers & Yarrow, 1988).

The literature suggests that there are three major means for governments to control SOEs’ management: 1) noninterference, e.g., in Britain and Germany (the government nominates all the directors but has no role in decision making in the Netherlands and Germany); 2) direct and continuous intervention, e.g., in the Third World; or 3) commercial decisions to support national economic development, e.g., in France (Lamont, 1979; Hafsi & Koenig, 1988). Thus, there is a tradeoff between performance and government control of SOEs—“whether, when, and how to intervene” (Lamont, 1979: 77).

SOEs offer strong commitment to national objectives in the exchange of preferential policies or support such as financial aid from the state. For instance, in Western countries such as France, Spain and Portugal, there were contracts between

SOEs and governments to identify organizational objectives, national goals, and SOE-state financial relationships in 1980s (McMillan, 1987). Moreover, in many SOEs, managers are responsible mainly to the state rather than other types of stakeholders (Tan & Tan, 2005).

For SOEs, the government generally plays an important role in terms of leadership. First, the top management team is generally determined by the government (Zou & Adams, 2008). Second, the enterprise is committed to inform the government of the SOE's strategies for approval and back-up (Mazzolini, 1979). Thus, human resource management in SOEs is highly influenced by the state. For instance, directors of SOEs are largely appointed by the government through supervising agencies and employees (Lin, 2004; Zou & Adams, 2008).

Organizational Structure

Key elements of organizational structure include formal structure, locus of decision making, and control mechanisms (Hodge, Anthony, & Gales, 1996). SOEs have specific organizational structures, which are highly influenced by their decision making processes.

Hierarchy in authority is dominant in the SOE as a formal structure (Lin, 2004). The SOE is mainly managed by the hierarchy in authority through personal and political power (Lin & Germain, 2003). Within the SOE, there are standardized procedures and regulations with multiple managerial levels while the promotion is based on the "knowledge of and obedience to these procedures and policies" (Ralston et al., 2006: 832), showing some typical characteristics of a bureaucracy as an organizational form

(Weber, 1968). Thus, organizational structure of the SOE has been typically characterized as hierarchy, resulting in problems in coordination and control (Lin & Germain, 2003).

In terms of the locus of decision making, SOEs typically have a high degree of centralization (Anastassopoulos et al., 1987). When the SOE do not need to operate for profit, but output and satisfy state objectives, the SOE is generally highly centralized under the state control without formal control mechanisms within the firm for performance (Lin & Germain, 2003).

External Environment

When I review on the external environment of the SOE, I analyze the expectation on external environment, the level of uncertainty confronted by the SOE, the relationship between government and SOEs as well as the industry distribution of the SOE.

Considering the external environment, stability is generally preferred by SOEs through standardized procedures (Lin, 2004; Mazzolini, 1979; Uhlenbruck, Meyer, & Hitt, 2003; Zahra, Ireland, Gutierrez, & Hitt, 2000). Under the protection of governments, SOEs confront limited competition (Uhlenbruck et al., 2003), face less pressure to generate profits and are compensated for operational losses (Luo, 1995; Tan & Litschert, 1994); instead, they focus on output and production (Ralston et al., 2006). Thus, SOEs may not experience a high level of uncertainty in the external environment (Tan & Tan, 2005) and not confront the typical types of risks (macroeconomic, policy, competitive, and resources) faced by MNEs inside the organization and in the external environment (Ghoshal, 1987).

The relationship between government and SOEs is generally strong because of the high stake of the state in SOEs. SOEs are economic actors, but they have to agree on corporate objectives with the government. The government controls SOEs through the determination on key managers and important strategic decisions (Tan & Litschert, 1994). But the controlling power is restrained by the decision process to actually monitor SOEs (Massolini, 1979).

Privatization and market liberalization in 1990s have greatly reduced state shares in national economies (OECD, 2005) and the relationship between government and SOEs is not as tight as before. Managers of SOEs have more autonomy in management and operations (Tan & Tan, 2005). But compared to private firms, SOEs are still constrained by government restrictions on major decision issues in terms of resource allocation, distribution of power, liabilities and regulations (Lin, 2004).

The range of involvement of SOEs in European countries varied enormously until the 1980s in industries such as in natural resources, high technology industries, declining industries, strategic industries (Thomas, 1986). SOEs were dominant in various industries in developing countries before the trend of privatization in 1990s (Kikeri & Kolo, 2006). After two decades of privatization, there are industries that are still mainly state owned or controlled such as aerospace for national security, infrastructure, finance, and energy (Kikeri & Kolo, 2006). SOEs' contribution to national economies is still large, particularly in strategic sectors, such as raw materials, petrochemical, telecommunications, and banking (Ralston et al., 2006).

Strategies and Change

When I review strategies and organizational change of the SOE, I analyze how the SOE makes strategic decisions, its attitude to risk taking and innovation, its degree of flexibility and organizational inertia confronted by the SOE.

In general, strategic decisions of SOEs need approval from the government (Mazzolini, 1979). When they make strategic decisions, they may have to follow government requirements that may be integrated with government goals (Lin, 2004). Moreover, due to the bureaucracy in SOEs, there is lack of coordination and necessary actions, and the strategic plans may not be well implemented in practice (Mazzolini, 1980). Further, managers are not mainly under pressure for profitability, but under pressure for achieving state objectives (Tan & Litschet, 1994). Because of the lack of management incentives, managers are generally risk averse and not proactive in innovative activities (Tan & Tan, 2005). Thus, SOEs are not adaptable to exceptional or risky circumstances in terms of their operations and strategies (Anastassopoulos et al., 1987).

SOEs are typically characterized with a high level of structural inertia, which happens when the firm resists changing (Tan & Tan, 2005). Strategic change comes slowly due to the organizational inertia (bureaucracy in procedures with sluggishness, multiple levels of management, decision making involves a variety of organizational units, coordination system is not efficient) (Mazzolini, 1979). SOE goals set by the government represent constraints on their actions due to the natural objective conflict, and so organizational inertia of SOEs is high (Tan & Tan, 2005; Mazzolini, 1979).

For similar reasons, organizational flexibility in strategic implementation is unlikely to occur. Organizational flexibility is “the capability of the firm to proact or respond quickly to changing competitive conditions and thereby develop and/or maintain competitive advantage” (Hitt, Keats, & DeMarie, 1998: 9) and always a problem to SOEs due to the relationships within the SOE and outside (e.g. government and other SOEs) (Mazzolini, 1979). For instance, even for a change in operational procedures, the process of change will be slow because of the involvement of government. Under the supervision of government agents, planned strategic change is hard to achieve (Lin, 2004).

Outcomes

As explained above, SOEs are not profit-oriented. In terms of corporate governance, the agency costs in SOEs are generally high and managers lack of incentives for profitability. In organizational structure of SOEs, the typical hierarchical structure within SOEs comes along with multiple levels of management (Ralston et al., 2006), and the locus of decision making is centralized. Because of the lack of managerial incentives, effective managerial monitoring and accountability, and the government subsidization for poor firm performance (Aharoni, 1986; Zou & Adams, 2008), the productivity of SOEs is typically much lower than private firms by a third or even more (Kikeri & Kolo, 2006). Prior empirical studies provide support to the significant differences in firm performance between SOEs and private firms (Goldeng, Grunfeld & Benito, 2008; Luo, 1995; Parker & Hartley, 1991; Ramaswamy, 2001).

Consequently, SOEs are generally not efficient because of the intervention of

government policies both in profitability and operations (e.g. Mazzolini, 1979; Luo, 1995; Anastassopoulos et al., 1987; Goldeng et al., 2008; White, 2000).

The MNE as an Organizational Form

Historical Background

“A multinational or transnational enterprise is an enterprise that engages in foreign direct investment (FDI) and owns or controls value-added activities in more than one country” (Dunning, 1993: 3). The essential characteristic of an MNE as an organizational form is that it operates multiple value-added activities in multiple countries (Westney & Zaheer, 2009). Due to the challenges of managing business activities in multiple environments, the MNE has unique characteristics as an organization that affect its organizational structure, external and internal conflicts confronted, and the ability to change (Westney & Zaheer, 2009).

Multinational enterprises have been with us for a very long time. MNEs are typically located in industries that are internationalized and where product differentiation is high, such as auto, oil and semiconductor industries (Caves, 1996). The first modern multinationals arose in Europe in 1600s, and it is generally acknowledged that the Dutch East India Company (established in 1602) in the Netherlands was the first multinational (Dunning & Lundan, 2008). In 1641, the firm built a plant in Bengal, India and a print works to conduct foreign value-added activities.

The industrial revolution in early 19th century greatly improved firms’ ability and stimulated them to participate in foreign investment for larger markets, efficiency and

resources, but mainly as the extension of domestic operations (Dunning, 1993). In the second half of the 19th century, organizational and technological advances, together with the improvement in infrastructure both in home and host countries, provided ownership specific advantages to firms and the need for the internalization of the market, which fostered the emergence of the modern multinational enterprises (Dunning & Lundan, 2008).

From 1918 on, foreign production entered a new era of maturation. U.S. companies dominated the multinational activities such as capital supply, innovation and entrepreneurship till 1960s. The second half of the 20th century saw the increasing participation in international markets of firms in continental Europe, Japan and some developing countries (Dunning, 2001). During this period, multinationals were mainly seeking new markets, resources and looking for low-cost production sites from their foreign operations (Dunning, 1993).

From the late 20th century to the early 21st century, there has been a trend of production globalization as the result of global environmental changes. Multinationals are more involved in strategic asset-seeking investment, and thus the choice of the location of multinational activity has changed accordingly. This period has witnessed a growing number of countries, in which firms are proactively involved in outward investment and international activities (Dunning & Lundan, 2008).

Below, I reviewed the key features of MNEs as an organizational form, “one of the most influential modern organizational forms” (Scott, 1992: 138). These are “pictures that have been painted with a broad brush” in that the characteristics of

individual MNEs, of course, are likely to differ from those described below. However, these characteristics are reasonable descriptions of the key features of the MNE as an organizational form.

Goals

The best-known theories for why multinationals exist as an organizational form are internalization theory (Buckley & Casson, 1976) and the eclectic (or OLI) paradigm (Dunning, 1981, 1993).

When involved in business activities across national boundaries, MNEs face costs of doing business abroad, including both economic and social costs (Eden & Miller, 2004). To make profits, MNEs have to offset these additional costs that domestic firms do not incur (Hymer, 1960/76). Thus, MNEs must have firm specific (ownership) advantages that increase their revenue or lower their costs so as to compete with local firms in the host country (Dunning, 1993). These ownership advantages can include production intangibles (e.g., process and product technologies), marketing intangibles (brand names), monopoly control over resources, and economies of scale and scope from large firm size.

The firm goes abroad to exploit its ownership advantages in foreign markets, earning additional rents over and above the profits it receives at home. The more ownership advantages a firm has, the more likely is the firm to internalize its investment in foreign markets, setting up foreign subsidiaries (creating an internal market or hierarchy) rather than exporting or licensing through external markets (Dunning, 1993). Similarly, the greater the market imperfections (e.g. transaction costs, government-

imposed market distortions) affecting cross-border transactions, the more likely is the firm to internalize its transactions.

Moreover, these firms may prefer to establish their foreign affiliates in countries or regions, which can provide endowments to “augment or exploit” their existing ownership advantages (Dunning, 2000: 164). Thus, the goal of the MNE is to maximize global profits from its worldwide operations.

Corporate Governance

MNEs operate in multiple environments for profits. They have to adapt to those external environments and coordinate within internal environments, imposing additional demands on their corporate governance (Dunning & Lundan, 2008). Involved in international operations, MNEs face complexity deriving from different cultural and institutional environments and internal coordination (Roth & O'Donnell, 1996). Thus, the MNE confronts the central management challenge. When I review corporate governance of the MNE, I analyze the internal conflict of interests within the MNE, the level of management autonomy, the commitment of the MNE and the key personnel appointment within the MNE.

Ownership structure and board structure mainly influence the monitoring of the MNE's management team for effective corporate governance (Hitt et al., 2006b). For instance, Sanders and Carpenter (1998) found that the separation of chairperson and CEO in the board can mitigate agency issues in managing the complexity confronted by multinational enterprises. Due to the infusion of more power and authorities in the organization, the level of managerial discretion in the MNE is reduced, resulting in a

reduction in agency costs (Sanders & Carpenter, 1998). Moreover, different types of owners may execute their control over the MNE due to different motivations. Tihanyi et al. (2003) find that although professional investment funds and pension funds have their own rationale to invest in MNEs, both types of institutional investors favor international expansion through the monitoring of the MNE's management team and increased activism in the MNE's strategic decisions. Further, different structures in the board of directors also influence the MNE's corporate governance (Tihanyi et al., 2003).

In addition, for the MNE, corporate governance problems are not only located in the parent firm, because there are always tensions between headquarters and foreign subsidiaries that result in internal conflict within an MNE (Holm & Pedersen, 2000). The management autonomy of a foreign subsidiary is critical when examining the role of the foreign subsidiary (Roth & O'Donnell, 1996). Research has found an increasing degree of foreign subsidiary autonomy. The results of those studies show that the management autonomy of foreign subsidiaries in MNEs is generally high, manifested in different types of foreign subsidiary roles such as "centers of excellence" (Frost, Birkinshaw, & Ensign, 2002).

As a modern organization, the MNE is strongly committed to shareholders and generates value for shareholders through international diversification (Morck & Young, 1991). Due to the separation of ownership and control, the management team implements corporate and international strategies under the monitoring of the board, and has a high degree of management autonomy (Davis, 2005). In terms of human resource management, the method of appointing those decision makers and the mechanisms of

corporate governance can be identified through the attributes of an MNE's board of directors (Dunning & Lundan, 2008).

Organizational Structure

Key elements of organizational structure include formal structure, locus of decision making, and control mechanisms (Hodge et al., 1996). When a firm enters a foreign country, there are additional requirements on its organizational structure, control mechanisms, and decision-making process (Dunning & Lundan, 2008).

The MNE's choice of organizational structure depends on factors such as the purpose of foreign investment, the degree (depth and width) of multinationality, location of subsidiaries, type of target markets, and its international experience (Dunning & Lundan, 2008). Early form of organizational structure can vary, ranging from forms such as the international department or division when the MNE has little international activities to regional or global divisions for more mature MNEs (Ghoshal & Westney, 2005). In the current global environment, the phenomenon of MNEs is more complex. Contemporary models include matrix structures, contractual and equity-based strategic alliances and hybrid (mixed) structures (Ghoshal & Westney, 2005). For instance, the worldwide geographic area structure matches the implementation of the multi-domestic strategy; the worldwide product divisional structure matches the implementation of the global strategy; and the combination structure (a hybrid form) fits the implementation of the transnational strategy (Hitt et al., 2009).

The MNE's organizational structure is contingent on the degree and characteristics of international diversification. Depending on the level of international

diversification, MNEs choose their organizational structure from the simple structure to the complex hybrid and matrix structure accordingly (Dunning & Lundan, 2008). More product lines and more complex technology in foreign operations lead to a more complex organizational structure. For instance, Unilever created a multidivisional global product organization when value added activities become intense. Considering both product and regional characteristics, Hewlett-Packard (HP) and ABB have adopted hybrid structures (Ghoshal & Westney, 2005).

The control mechanism of an MNE varies according to its structure (Hitt et al., 2009) and efficient control facilitates the development of core capabilities for successful international competition (Doz, Prahalad & Hamel, 1990). Hennart (2005) categorized control of subsidiaries into four types: hierarchy, selection and/or socialization, no interaction within the firm, and profit centers. Interdependencies can affect the degree of centralization. If headquarters cannot price easily the interdependencies, control may be more formal, direct and centralized (Hennart, 2005). For instance, in the most complex structure of transnational strategy, the organizational structure may be both centralized and decentralized (Hitt et al., 2009). With these opposite characteristics in the organizational structure, socialization becomes the most important control mechanism to support effective coordination within the organization (Hennart, 2005).

The locus of decision making ranges from centralized to decentralized along a continuum, and thus there are different ways in decision making shared by headquarters and subsidiaries (Ghoshal & Westney, 2005). Centralization results in the loss of quick response and effectiveness of subsidiaries. By contrast, decentralization may lead to

inefficiencies of an MNE operation because subsidiary managers may pursue sub-unit goals rather than headquarters' objectives. An appropriate combination of both mechanisms may be pursued for the best outcome (Ghoshal & Westney, 2005). Thus, whether and to what degree an MNE is centralized and the rationales behind such structure and method of control should be identified. The appropriate selection of locus of decision making adopted by the MNE is determined by many factors such as nationality of ownership, equity holding by parent, mode of entry, relative and absolute size of subsidiary, industry elements, organizational characteristics of parent company, and subsidiary performance (Young, Hood, & Hamill, 1985).

In an MNE, organizational structure and intrafirm relationships are country specific due to external uncertainties and internal organizational needs (Dunning & Lundan, 2008). Cross-border cultural differences matter much in shaping organizational structure, more than the effect of technology innovations (Dunning, 2003). National boundaries are important but to different extents for differences in organizational structure because of different institutional (legal or cultural) elements (Rosenzweig & Singh, 1991).

External Environment

MNEs confront economic, political, legal and cultural environments that differ across home and host countries (Sundaram & Black, 1992; Rugman & Verbeke, 2009). These environments generate external pressures on firms, resulting in complex conflicts. Hence, in order to better comprehend an MNE as an organizational form, the understanding of its external environment is important (Westney & Zaheer, 2009). When

I review on the external environment of the MNE, I analyze the expectation on external environment, the level of uncertainty confronted by the MNE, and the relationship between the state and the MNE as well as the industry distribution of the MNE.

From an institutional analysis, different types of complexity influence the legitimacy of both headquarters and subsidiaries: 1) environmental complexity in terms of number of countries and institutional distance; 2) organizational complexity in terms of conflict of internal and external legitimacy; and 3) complexity of the legitimation process in terms of LOF and legitimacy of other parts of an MNE (Kostova & Zaheer, 1999). Among these factors, for instance, liability of foreignness (LOF), the social costs of costs of doing business abroad (CDBA), is mainly driven by institutional distance between country environments (Eden & Miller, 2004). Different dimensions of the liability of foreignness (unfamiliarity, relational and discriminatory costs) (Eden & Miller, 2004) bring divergent degrees of complexity and difficulty in achieving organizational legitimacy (Kostova & Zaheer, 1999).

Because of external environment threats such as more intensive competition in the global markets, unfamiliarity with host government regulations, and political instability in the host countries, the level of uncertainty in the external environment for an MNE is generally high (Rugman & Verbeke, 2009). Ghoshal (1987) notes there are four types of risks (macroeconomic, policy, competitive, and resources) in the external environment for the MNE. Macroeconomic risks are caused by uncertainties in economic development of the home countries. Policy risks are caused by uncertainties in political actions of governments in home countries. Competitive risks are caused by

uncertainties of competitors' competitive actions and responses. And resources risks are caused by uncertainties of acquiring resources in home countries, such as human and capital (Ghoshal, 1987). Subsequently, when an MNE goes abroad, it often confronts a high level of uncertainty.

The relationship of an MNE with governments is dynamic (Dunning & Lundan, 2008). During the 1970s and the 1980s, governments were generally very critical to firms' international activities (Dunning, 1994; Vernon, 1971; 1977). From the 1990s, the MNE's contribution to national economies has been mainly recognized and realized, such as the increase in resource base and production capabilities of those countries (UNCTAD, 1995). Governments, thus, announced more friendly laws and regulations to both inward and outward foreign direct investments (Eden, 1996). For instance, in current global environment, host governments may provide investment incentives, tax holidays or low-cost financing to encourage inward foreign investment from foreign MNEs. Home countries also take actions to facilitate outward foreign investment, such as preferential policies and government support (UNCTAD, 2003). Thus, an MNE has to deal with policies and regulations in both host and home country governments in order to make profits and operate efficiently (Dunning & Lundan, 2008).

Finally, MNEs are located in various industries, particularly industries that are internationalized and where product differentiation is high, such as auto, oil and semiconductor industries (Caves, 1996).

Strategies and Change

When I review strategies and organizational change of the MNE, I analyze how

the MNE makes strategic decisions, its attitude to risk taking and innovation, its degree of flexibility and organizational inertia confronted by the SOE.

Pressure for global integration and pressure for local responsiveness influence the strategic decisions of MNEs (Bartlett & Ghoshal, 1989; Hitt et al. 2009; Leong & Tan, 1993). Focusing on managerial processes, Bartlett and Ghoshal (1989) identified four types of international strategies of MNEs: multidomestic, global, international and transnational, depending on the firms' responses to the global integration-local responsiveness matrix.

When both global integration and local responsiveness pressures are low, the MNE faces no pressures to alter its strategies from those developed when it was a domestic firm. Thus, the MNE can choose an international strategy that simply replicates abroad what it does at home.

When pressures for global integration are high, the MNE should adopt a global strategy, whereby the structure of global firms is centralized and the parent company controls the strategic implications of its subsidiaries. The MNE is organized so as to achieve maximum global efficiencies from its worldwide operations (Harzing, 2000).

When pressures for local responsiveness are high, the MNE can let "1,000 flowers bloom" (Tallman & Yip, 2009), as its foreign subsidiaries pay close attention to their local environments. A multidomestic strategy is adopted whereby the structure of the multidomestic MNE is decentralized, and its subsidiaries are autonomous.

Lastly, when both pressures for global integration and local responsiveness are high, Bartlett and Ghoshal (1989) argued that the MNE would adopt a transnational

strategy. The MNE must simultaneously balance “going global” with “being local”. Transnational firms have unique features and function as “an integrated and interdependent network” with subsidiaries acting as centers of excellence (Harzing, 2000) in terms of affiliate autonomy (Dunning & Lundan, 2008).

In the current global market, innovations have become the main and unique source of competitive advantage for an MNE to compete successfully (Hitt et al., 1997; Tallman & Yip, 2009). With decades of economic development, the sources for competitive advantage such as economies of scale and international sourcing in the world’s labor and materials cannot guarantee a sustained competitive advantage (Bartlett & Ghoshal, 1990). In this case, leaders in technology and markets may win the competition by investing in intensive R&D for new products and services. However, the high cost of R&D and the shorted product life cycles generate a high level of risks on the way to success (Dunning & Lundan, 2008). Thus, in order to become a winner, an MNE is generally taking risk and devoting attention to innovative activities.

The ability to change enables an MNE to adapt to the changing environment, either internal or external (Doz, et al., 1990). The ability is influenced by the degree of flexibility and by the level of organizational inertia. Flexibility is a key part of management (Lorange & Probst, 1990; Uhlenbruck et al., 2003) and flexibility in coordination is important for an MNE to realize successful management in international competition (Bartlett & Ghoshal, 1989; Doz, et al., 1990; Lee and Hitt, 2001). The external environment in which the firm operates often changes dramatically. Hence, an MNE generally confronts a high level of uncertainty in its external environment when

expanding internationally (Tallman & Yip, 2009). Thus, its flexibility in structure, strategy and processes to deal with environmental volatility is crucial (Kogut, 1985; Lee and Hitt, 2001). Moreover, changes within the firm can also engender organizational changes in structure and other aspects of the organization, which makes flexibility important (Tallman & Yip, 2009).

Multinational firms have to adjust their objectives, strategies and structures with the changes in the external environment (e.g. institutional regulations in both home and host countries) so that they can maintain their competitive positions and realize their strategic goals (Tallman & Yip, 2009). For instance, Calof & Beamish (1995) find that the modes of entry as well as mode changes are influenced by regulatory environments. However, different sources of organizational inertia generate obstacles for firms to fit with the external environment. Moreover, the existing rules, procedures, and culture inside the organization prevent an MNE from making changes rapidly and effectively (Rugman & Verbeke, 2009). Thus, MNEs endeavor to speed up effective changes against inertia to ensure their profitability (Rugman & Verbeke, 2009).

Outcomes

As an economic organization (Caves, 1996), the MNE is generated when it internalizes markets across national boundaries (Buckley & Casson, 2009). The MNE operates in foreign countries for added value (Dunning, 1993), improved competitiveness and increased profitability (UNCTAD, 1995). During international expansion, the MNE continuously creates and exploits advantages for economic returns from foreign markets (Buckley & Casson, 2009). So, from an economic perspective, the

MNE is always looking for efficiency and profitability (Anastassopoulos et al., 1987).

Prior studies suggest that with advanced technology and managerial skills, private MNEs, on average, have a higher level of efficiency compared to SOEs (Park et al., 2006; Tan, 2002; Tan & Tan, 2005).

Comparison of the SOE and MNE as Organizational Forms

I have compared and reviewed key features of SOEs and MNEs as organizational forms. These are “pictures that have been painted with a broad brush” in that the characteristics of individual SOEs (and of individual MNEs), of course, are likely to differ from those described above. However, I argue that these characteristics are reasonable descriptions of the key features of the two organizational forms.

These features are interdependent and will influence an enterprise’s operations. The differences between the SOE and the MNE as organizational forms are explicit in regard to goals, corporate governance, external environment, and strategies, but less so in terms of organizational structure. Table 2.1 summarizes the main differences between SOE and MNE as organizational forms.

First, MNEs are profit oriented, while SOEs function as the instrument of state objectives and may not pursue profits. Second, in terms of corporate governance, for SOEs, the main governance mechanism is decided by the state, while that for MNEs is decided by the board. Thus, due to the control of the state, SOEs generally have a lower level of management autonomy than that of MNEs.

Third, SOEs and MNEs confront different external environments. For SOEs,

because of the protection from the state, SOEs have a relatively stable environment, and thus the level of uncertainty in their external environment is lower than that of SOEs. In contrast, MNEs have no particular protection from either home or host governments and face additional complexities in the international environment. Thus, MNEs need to pursue legitimacy in multiple environments, and the level of uncertainty in their external environment is higher than that of SOEs. Consequently, SOEs and MNEs adopt different strategies and make subsequent organizational changes. For instance, SOEs are generally risk averse and not active in taking risks. In contrast, MNEs are proactively involved in risk taking activities (e.g. innovation) and flexible to change with the volatile environment. The above characteristics of SOEs and MNEs are quite different from each other.

Comparatively, the characteristics of their organizational structures in SOEs and MNEs do not differ much from the other. In terms of locus of decision making, the MNE will choose its way of control from very centralized to very decentralized due to other factors inside and outside the organization. Thus, there is no fixed pattern of organizational control in MNEs. In SOEs, the locus of decision making is generally centralized due to the interference of the state. Therefore, overlap exists in the locus of decision making of these two organizational forms. Lastly, because of differences in key attributes of the SOE and the MNE, the outcomes differ; i.e., the MNE is generally considered more efficient than the SOE.

Table 2.1 Comparing the SOE, MNE and SMNE as Organizational Forms

Key Features	SOE	Old Style SMNEs (20 th century)	MNE	New Style SMNEs (21 st century)
Definitions				
1. Controlling party	The state	The state	Ultimate beneficial owner (UBO)	The state + UBO
2. Ownership structure	The state is the ultimate owner	Majority owned by the state (state ownership > 50%)	Various	At least state controlled (state ownership >10%)
3. Geographic spread	One country	More than one country	More than one country	More than one country
Goals				
Objectives	State objectives, e.g. output and production oriented	Restrained by national objectives	Profitability and efficiency oriented	Restrained by national objectives + efficiency oriented
Corporate Governance				
1. Internal conflict of interests	State vs. Management	Both, but more due to the conflict between the State and Management	Parent vs. Subsidiaries	Both, but at different organizational levels
2. Management autonomy	Low	Low to Medium	High	Medium to High
3. Commitment	Strong to Government	Strong to Government	Strong to shareholders	To Government and other shareholders, depending

Table 2.1 Continued

Key Features	SOE	Old Style SMNEs (20th century)	MNE	New Style SMNEs (21st century)
				on the ownership structure
4. HR management	Determined by the government	Determined by the government	Determined by the board	Determined by the government and the board
Organizational Structure				
1. Formal structure	Hierarchy	Hierarchy	Various forms	Various forms
2. Control	Hierarchy	Hierarchy	Hierarchy, Socialization, or Profit Centers	Hierarchy, Socialization, or Profit Centers, depending on autonomy
3. Locus of decision making	Centralized	Less centralized	Centralized or Decentralized	Less centralized, but depending on nationality
External Environment				
1. Expectation	Stability is expected	Stability is expected	Legitimacy in environments of different countries	Both, but at different organizational levels
2. Uncertainty	Low	Low	High	Medium to High
3. Industry distribution	Key sectors	Various	Various	Key sectors

Table 2.1 Continued

Key Features	SOE	Old Style SMNEs (20th century)	MNE	New Style SMNEs (21st century)
4. Relationship with the State	Strong	Less strong	To both home country and host country governments	To both home country and host country governments, but comparatively stronger to home country government
Strategies and Change				
1. Risk taking & Innovation	Low	Low to Medium	High	Medium to High
2. Degree of flexibility	Low	Low to Medium	High	Medium to High
3. Organizational Inertia	High	Medium to High	Low	Low to Medium
Outcomes				
Efficiency	Low	Low to Medium	High	Medium to High

In conclusion, the SOE appears to be quite different from the MNE as an organizational form, as shown in their key features. The SMNE is the overlap of the SOE and the MNE. Thus, different characteristics of the SOE and the MNE may generate conflicts when the attributes of the SOE and those of the MNE coexist in the SMNE. Therefore, I expect that the SMNE to evidence a higher level of complexity.

Below, I first review SMNEs in the 20th century as “old style SMNEs”. Due to the dramatic changes in global environment, the phenomenon of the SMNE in the 21st century has changed greatly. However, there is little research on today’s SMNEs. Thus, I suggest propositions on this “new style SMNE” as a hybrid organizational form.

The SMNE as a Hybrid Organizational Form

Based on the above comparison of the key features of MNEs and SOEs, I conclude that MNEs and SOEs are very different organizational forms (see also Anastassopoulos et al., 1987). Nevertheless, enterprises that have both some degree of multinationality and some degree of state ownership do exist, and with some frequency. I therefore argue that the state multinational is a hybrid organizational form that is neither wholly an SOE nor wholly an MNE, but rather has components of both organizational forms.

An enterprise can start either as an MNE and then acquire state ownership or a state owned enterprise can start as a domestic enterprise and become a multinational enterprise. An enterprise can therefore start either way to become a state multinational enterprise (SMNE), i.e. from an SOE to an SMNE through international diversification

or from a multinational to an SMNE through nationalization (Anastassopoulos et al., 1987).

There are both coercive pressures and internal motivations for either type to become a state multinational. For instance, some industries are already internationalized, such as automobiles, oil and semiconductors. Firms in those industries must become multinationals because success depends on whether and how they consciously expand internationally (Anastassopoulos et al., 1987).

There are many examples of either type of transformation. On one hand, many state enterprises, especially those from emerging markets, are now proactively participating in global competition through different types of international diversification (Luo & Tung, 2007). In emerging economies, governments encourage SOEs to enter into international markets for increased efficiency and improved performance (Toninelli, 2000). For example, China announced a new “Go Global” policy in 1999, and emphasized the policy at the end of 2002 to encourage Chinese firms’ international expansion. The Singapore government declared public policies to encourage the international diversification of its state controlled enterprises in 1994 (UNTCAD, 2006).

There are also coercive pressures for SOEs to become state multinationals. In the current global economic environment, competition in domestic markets is more severe due to less institutional protection for SOEs and increased competition from private domestic firms as well as foreign MNEs (Tan, 2002). Meanwhile, while domestic markets are becoming more saturated, there are opportunities in the overseas markets if SOEs can act proactively, which force those SOEs to pursue international diversification

(Tan & Tan, 2005).

On the other hand, many MNEs have turned into SMNEs in developed countries such as France, the U.K., and the U.S. For instance, in the early 1980s, five multinational groups were nationalized in France, all of which were among the world's leaders in their industries (i.e. Compagnie Generale, d'Electricite, Thomson, Pechiney, Rhone-Poulenc, Saint-Gobain) (Anastassopoulos et al., 1987). In other European countries such as the United Kingdom and Greece, major industries groups such as British Petroleum, British Leyland Motor Corporation, and Olympic Airlines were also nationalized in 1970s (Anastassopoulos et al., 1987).

Historically, developed country governments used state owned enterprises to improve a nation's international position. When these firms became multinationals, they were expected to follow the investment objectives of the state in terms of corporate strategies (Vernon, 1977). Governments in France, Germany and other European countries even sacrificed their control in SOEs to encourage them to strengthen the competitiveness of national industries in world markets (Lamont, 1979).

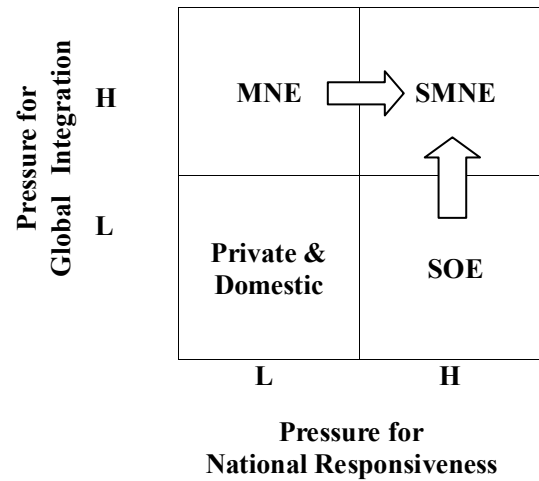
There are also coercive pressures for multinationals to become nationalized. The nationalization of multinationals may occur in crisis periods. In the current global financial crisis, governments in both developed (US and Western Europe) and developing countries have had to nationalize some industry giants, such as finance and auto firms in order to stabilize their national economies (Tabb, 2008). For example, many financial institutions in the United States, including American International Group (AIG) and Citibank, became government controlled or owned to avoid massive

disruption due to global financial markets in 2008 (Tabb, 2008).

Thus, I propose the evolutionary paths for a firm to become an SMNE in Figure 2.1. There are two dimensions: the pressure for global integration in different industries and the pressure for national responsiveness (i.e., government involvement) in different industries and/or countries. For instance, in industries such as auto, oil and steel, because of the need for economies of scale, the pressure for global integration is high. In industries such as national security and national resources and in countries such as China and Singapore, the pressure for national responsiveness is high. When there is not much pressure on either dimension, private and domestic firms are dominant. When the pressure for global integration is high while the pressure for national responsiveness is low, the firm operates as an MNE. When the pressure for global integration is high while the pressure for national responsiveness is low, the firm operates as an SOE. When pressures for both dimensions are high, the SMNE is formed.

Therefore, I conclude that a company can go either way to become a state multinational. Because of coercive pressures and internal motivations discussed earlier, some MNEs have eventually evolved into SMNEs due to the increased pressure for social responsibility. Meanwhile, some SOEs have eventually evolved into SMNEs due to the increased pressure for global integration in the new global environment.

Figure 2.1
Evolutionary Paths to Become an SMNE



A Tentative Typology of State Multinationals

Anastassopoulos et al. (1987) identified a typology of nine types of state multinationals (see Figure 2.2) using the theoretical lens of corporate identity, which is “what makes any enterprise different from others....; at the same time all the individuals working in the enterprise adhere to such identity and unite in the pursuit of a common goal” (p127). The authors considered two dimensions: ‘propensity to multinational activities’ and ‘propensity for the state to intervene in management’ to identify different types of state-owned multinational firms (Anastassopoulos et al., 1987:160). Based on the comparison between the development gap between current and potential development in economics (wide vs. narrow) and the ideology (free market vs. interventionism), the propensity of the state to intervene in the economy can generally be determined (Anastassopoulos et al., 1987). For instance, when a firm, located in a developed country, acts with a market orientation and is not heavily constrained by state

objectives, the propensity for the state to interfere with the firm's management is at a minimum.

Based on the sector of activity on multinationalization (favorable vs. unfavorable) and the corporate identity on multinationalization (favorable vs. unfavorable) of an SMNE, the propensity to go international can be determined (Anastassopoulos et al., 1987). When the corporate identity of a firm is favorable to expand internationally and the firm is located in an industry that favors internationalization (e.g., auto industry), the propensity for multinational activities is at a maximum. Thus, their typology shows the propensity of a state owned enterprise to be involved in international diversification and to be influenced by the state. Firms that were called "hermits" were generally with a 'domestic' nature and intervened by the state to a great extent, such as those in public service sectors. Firms that were called "unfair competitors" were generally located in sectors that were internationalized, and in a country that the development gap was wide and the prevailing ideology is interventionism. Firms, such as Airbus in France and Embraer in India, were treated as "unfair competitors" to their rivals, more specifically, to American firms (Vernon, 1977).

However, the world environment has changed greatly at the international, national, and industrial levels (e.g. Ohmae, 1995). Many state multinationals have been listed in stock markets and incorporated other types of ownership for more efficient corporate governance, resulting in a diversified ownership structure (Tan & Tan, 2005). As explained earlier, they also face a better environment to expand into foreign markets than the "old style" state multinationals and are involved more deeply in international

diversification. Industries the “new style” SMNEs are located are generally key sectors and/or with strategic importance (Kikeri & Kolo, 2006). The development gap in Anastassopoulos et al. (1987)’s typology for all SMNEs in the current global environment is not significant any longer for many SMNEs, for instance, from European countries. Therefore, Anastassopoulos et al. (1987)’s typology may not hold for the new-style SMNEs and I suggest my typology for the SMNEs in the new millennium.

Figure 2.2
A Typology of Old Style SMNEs*

Propensity for multinational activities □	Maximum	Quasi-Private Multinationals	National Champions	Unfair Competitors
	Average	Potential Deserters of the Public Sector	At the Crossroads	Instruments of Foreign Policy
	Minimum	Hermit	Instruments of Industrialization	Cornerstones of Development
		Minimum	Average	Maximum
Propensity for the state to intervene in management				

Note: * Proposed by Anastassopoulos et al. (1987).

Based on the degree of two dimensions (Multinationality and State Ownership), I suggest four hybrid types of state multinational enterprises (SMNEs); these are illustrated in Figure 2.3. Whereas Anastassopoulos et al. (1987)’s typology focuses on

intention (that is, what SMNEs may do), considering the ideology of a country and corporate identity of a firm, my categorization of state multinationals focuses on *action* (that is, what SMNEs are doing). Therefore, my typology is more practically oriented than Anastassopoulos et al. (1987)

When state ownership is lower than 10% (that is, private individuals or other firms own more than 90% of the voting shares), I argue that such low ownership is akin to portfolio investment. Holders of portfolio investments are passive “coupon clippers”, buying securities such as bonds and stocks for their dividends and interest receipts, and not involved in active management or control of the firm issuing the securities. I assume that a government holding less than 10% of the voting shares in an enterprise is similar to a portfolio investor and is therefore unlikely to have a significant influence on corporate governance, corporate strategies and firm performance. Thus, those multinationals function more like private MNEs, conducting their activities depending on the degree of multinationality.

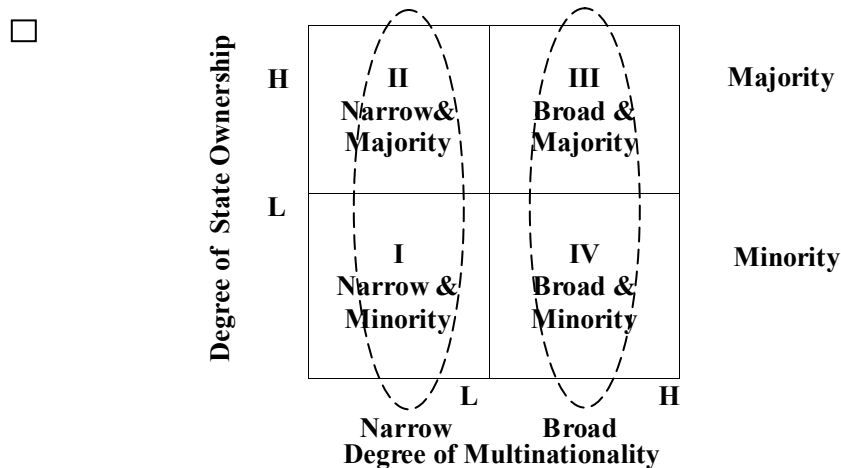
Because the purpose of my dissertation is to focus on the hybrid case where both the government and private investors play active roles in managing the multinational enterprise, this category -- MNEs with state ownership lower than ten percent --- is not my main concern and are excluded from the empirical work in my dissertation.²

When the degree of state ownership (DOS) is low (above 10% but below 50% of

² At the post-dissertation stage, it may be useful to also explore whether governments with less than 10% ownership have any impact on corporate governance, strategies and performance of state multinationals. I assume the impact is zero or close to zero in this dissertation, but in practice even 5% ownership may be sufficient to exercise some control over the firm's strategies, activities and performance. For example, Japanese keiretsu are typically linked by 5% cross-equity share holdings, and function as a corporate group. The question as to whether less than 10% state ownership matters for firm strategy and performance is therefore of interest, but reserved for post-dissertation research.

equity) the state holds minority ownership. The state therefore should behave as a minority investor, similar to a minority joint venture partner. The enterprise is influenced by the state's policies and under the supervisory of state agents. I therefore consider that the state functions as an "Investor" in the SMNE.

Figure 2.3
A New Typology of SMNEs



When the degree of state ownership is high (more than 50%), the state holds majority ownership. The major strategic decision making will be highly influenced by the state and the state is the ultimate "Owner". I argue that multinationals with state ownership over 10% are state controlled or owned (state multinationals; that is, SMNEs).

I define the degree of multinationality (DOM) by an enterprise's geographic spread; that is, the number of foreign countries where the MNE has affiliates³ (Kogut & Singh, 1988; Reuer & Leiblein, 2000). The SMNE must have at least one majority-

³ Here I only consider one dimension of the breadth of SMNEs' international expansion as the criterion to judge the degree of multinationality. However, I check the correlations between Breadth and Depth both for my three-year and seven-year samples, which is highly and significantly related. Thus, I am confident in using this single dimension to simplify my judgment on the degree of multinationality.

owned foreign affiliate; i.e. control in the foreign affiliate > 50%. When the SMNE invests in only a few countries, I consider the degree of multinationality to be low (“Narrow”). When the MNE invests in many countries, the level is considered high (“Broad”). The greater the number of countries where the SMNE has foreign affiliates, the greater the internal and external complexities faced by the SMNE (Kostova & Zaheer, 1999; Sundaram & Black, 1992).

The state multinational (SMNE) therefore can be decomposed into a 2x2 matrix, depending on its degree of state ownership and degree of multinationality. Although a 2x2 matrix is coarse grained, it includes the main factors (state ownership and international diversification) that can influence the development of SMNEs. I identify the different types of SMNEs in these four cells as hybrid organizational forms, based on the data collected and confirmed by the end of 2009.

First, when the degree of state ownership (DOS) is low and the degree of multinationality (DOM) is low (L-L), the state multinationals are minority owned by the state and narrowly invest in a few foreign markets. An example of an L-L state multinational is Hellenic Petroleum, a Greek petroleum firm, which has 27% state ownership and foreign affiliates in seven countries. Another example is the MTN Group Limited in South Africa, which operates in the communication services industry, has 15% state ownership, and foreign affiliates in five countries. The L-L group includes those state multinationals, which are minority controlled by their home country governments and are narrow foreign investors. Compared to SMNEs with majority state ownership, the L-L group should have a higher degree of autonomy and may be more likely to

improve their performance through their process of international diversification.

Second, when the degree of state ownership is low and the degree of multinationality is high (L-H), state multinationals are minority owned by the state but are broadly invested in many foreign countries. Firms here are generally located in internationalized industries, such as steel and auto. For instance, Rautaruukki is a steel multinational headquartered in Finland, with 40% state ownership and foreign subsidiaries in 28 countries. In the L-H group, these SMNEs are under some control of their home governments and have a broad geographic spread. Compared to SMNEs with small numbers of foreign affiliates, SMNEs in the L-H group are likely to face more challenges in managing their external environments and relationships with their foreign affiliates due to broader geographic spread.

Third, when the degree of state ownership is high and the degree of multinationality is low (H-L), the state multinationals are majority owned by the state and narrowly invest in a few foreign markets. High state ownership means these enterprises must fulfill government initiatives. An example of a H-L enterprise is PTT in Thailand, a petroleum and products wholesaler with over 50% state ownership, and foreign affiliates in five countries. Indian Oil, a petroleum firm headquartered in India, has more than 80% state ownership and foreign affiliates in four countries. Petroleo Brasileiro, a Brazilian natural gas and crude petroleum enterprise, has 55% state ownership and foreign affiliates in six countries by the end of 2009. This group includes many state multinationals in key sectors with strategic purposes (e.g. oil, natural gas). As the ultimate owner, the state highly influences their motivations and organizational

behaviors. In comparison with SMNEs with low state ownership, I expect the state to play a greater role here in corporate strategies.

Fourth, when both the degree of state ownership and the degree of multinationality are high (H-H), the state multinationals are majority owned by the state and broadly invested in many foreign markets. An example of a H-H firm is Singapore Telecommunications, located in telecommunication industry, with over 50% state ownership, has foreign affiliates in 22 countries. Gdf Suez in France, located in natural gas transmission industry, has 80% state ownership and foreign affiliates in 34 countries. The H-H firms are majority owned by their home-country governments and therefore influenced by government objectives. The firms also enter multiple international markets to enjoy the benefits of international diversification and at the same time, contribute to the national economic development. Because of the direct intervention from supervisory agents of governments, the negative effects of state ownership on corporate governance may be prominent. Moreover, they may be highly influenced by national initiatives when implementing international strategies, which may interfere with their corporate goals of pursuing economic performance (Luo & Tung, 2007).

Illustrative Examples of the Development of State Multinationals

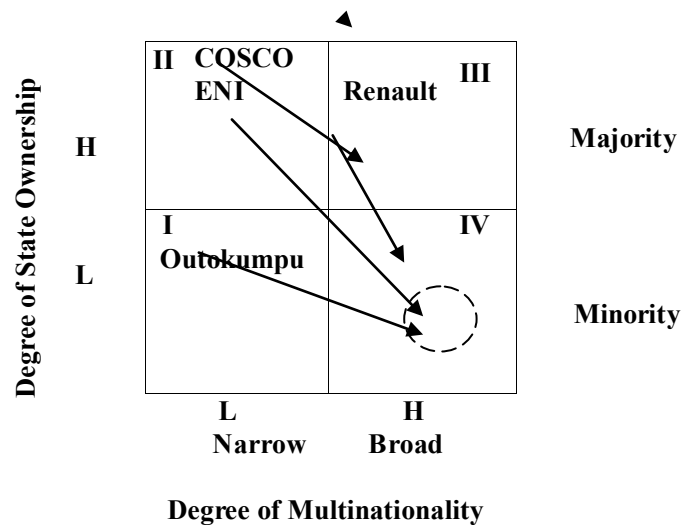
Substantive examples may help us to understand the development of SMNEs as a hybrid organizational form. I therefore illustrate the development of SMNEs from 1990 to 2008, using four typical cases. These cases are summarized in Figure 2.4, which reproduces but shows the patterns by which the four SMNEs moved in terms of their DOS and DOM over the 1990-2008 period:

- COSCO, a Chinese shipping multinational, became an SMNE in the 1980s and continued to expand internationally throughout the time period. In 1990, the SMNE therefore started from Quadrant II (high DOS and low DOM) and ends in Quadrant III (high DOS and high DOM).
- Renault, a French auto multinational, was nationalized into an SMNE (100% state ownership) in 1945. Renault gradually reduced its state share and by 1994, it had 53% state ownership. Although it was privatized in 1996, Renault is still under the state control (state ownership 15.01%). Renault therefore starts in 1990 in Quadrant III (high DOS and high DOM) and ends in Quadrant IV (low DOS and high DOM).
- Outokumpu, a steel firm headquartered in Finland, is active in international investment and activities. For instance, it fully acquired Swedish stainless steel maker AvestaPolarit in 2002 and upgraded its production complex (Outokumpu, 2009). Although always highly controlled by the government (state ownership > 30%), it continuously endeavors to improve its performance. Outokumpu starts in Quadrant I (low DOS and low DOM) and ends the period in Quadrant IV (low DOS and high DOM).
- ENI, an Italian petroleum firm, first expanded into international markets such as Romania and Albania in the 1930s (ENI, 2009). Established in the 1920's by the Italian government, ENI was a tool to improve the country's economy and help the development of the industry. In the 1980s, ENI was still wholly state owned. But it went public in 1995. Through four successive public offerings, it has

greatly reduced its state ownership from 100% to around 30%. Meanwhile, ENI continuously expands into international markets and is highly involved in international activities (ENI, 2009). Therefore, ENI starts in Quadrant II (high DOS and low DOM) and ends the period in Quadrant IV (low DOS and high DOM).

The general trend in all four cases is southeast; that is, a decrease in the degree of state ownership as the degree of multinationality increases (a movement into cell IV). Thus, in order to enjoy benefits of international diversification (Hejazi & Santor, 2009), SMNEs may maintain autonomy in management to prevent a high level of the state's intervention and expand into international markets more broadly when their resources and capabilities allow them to do so. I anticipate that this will be the general trend for SMNEs in the current world, but do expect exceptions.

Figure 2.4
Typical Examples of SMNEs, 1990-2008



Below, I further describe the changes in cells during the 1990-2008 period

through two typical and successful cases:

- COSCO is from a developing country (China) and evolved from an SOE to an SMNE;
- Renault is from a developed country (France) and evolved from an MNE to an SMNE.

Case 1: China Ocean Shipping Co. (COSCO) in China

COSCO is a shipping firm that does ocean shipping. It was established with only four ships in 1961 as a large and wholly owned SOE under the control of China's traditional planned economy (Jin, 2007). With more than 40 years' development, COSCO, still majority owned by the state, has achieved a high level of profitability in the global shipping industry (Che, 2009).

As a traditional SOE, COSCO pursued output and employment in its early stages of development rather than profitability. The 1960s and 1970s were periods when COSCO greatly increased its fleet scale. From 1993 to 1998, COSCO implemented a diversified corporate-level strategy. During this period, COSCO expanded so fast in its scale and business lines that its expenses surpassed revenue, thus putting it into such a danger that it lacked sufficient working capital to maintain normal daily operations (COSCO, 2008). However, before China's "Go Global" policy, COSCO was fully under the guidance of China's planned economic system and centralized. Although it increased its scale rapidly, it did not suffer much from environmental risks due to the government protection (COSCO, 2008).

In 1988, COSCO established a wholly owned subsidiary through acquisition in

the United Kingdom, where it started its journey of international diversification (COSCO, 2008). As a successful state multinational, COSCO has its own organizational characteristics to compete in the 21st century. COSCO has a market-oriented top management team (TMT), in which the key TMT members are determined by the government (Che, 2009). Moreover, COSCO's way to succeed is to reform when it participates in the international competition (Che, 2009). COSCO established a "state owned but privately run" mechanism, thus adjusting its operational and strategic decisions based on market demand while fitting in government objectives (COSCO, 2008). Therefore, COSCO obtained a high degree of autonomy and gradually improves its core competences while maintaining the controlling power of national assets. In addition, with a high degree of autonomy in management, COSCO considers both risks and opportunities in international markets (Che, 2009).

During COSCO's process of international diversification, it serves the state, the ultimate owner, while obtaining substantial support from the state (Wei, 2005). For instance, in developed countries, the Chinese government helps COSCO to compete for a fair competitive environment. A typical example is the solution to the exemption of its previous "Controlled Carrier" status in the United States because COSCO is a state owned company. The difference from "Carrier" is that a controlled carrier has to change its price after 30 days' notice, which means COSCO cannot adjust its freight within 24 hours based on the market demands. In 2003, the unfair situation was eventually changed after the Chinese government negotiated with the U.S. government for three years (Wei, 2005).

In conclusion, COSCO is an SMNE that competes broadly and successfully in the global market. Government supports its expansion into foreign markets when needed while endowing a high degree of autonomy to COSCO's management in daily operations. Thus, COSCO is able to improve its performance while contributing to China's national economic development.

Case 2: Renault in France

Renault was founded in 1899 by Renault brothers to produce automobiles. It began its international production by setting up a manufacturing plant in Belgium in 1901 through an international license contract. Renault, as a multinational company, was nationalized in 1945 (state ownership was 100%) (Renault Club, 2008). After its nationalization, it continued its international expansion. For instance, in the 1950s, Renault began to cooperate with the Italian automobile body design company Ghia by establishing a styling centre in Italy (Renault Club, 2008).

From the 1980s, the French government began to reduce its holdings in Renault. In 1994, the French government still held 53% of Renault's share. Privatization process in 1996 reduced the French state's share to 46%, which means Renault was not majority owned by the state any longer. From then on, the French government kept reducing its share holding through different types of transactions; as of 2008, the state holds 15.01% of Renault's share capital (Renault, 2008).

The nationalization of major industries may bring inefficiency to some multinationals (e.g. British Steel and British Leyland). However, present in more than 100 countries, Renault remains one of the most dynamic automotive firms in the world

and maintains its ranking as Western Europe's top brand of cars (Renault Club, 2008). Rather than traditional international strategies for automakers (i.e., economies of scope), Renault had strong product quality, a range of product variety and innovation resources and capabilities to support its international expansion in 1990s (Midler, Neffa, & Monnet, 2002). In order to compete successfully in the new global environment, Renault is taking advantage of collaboration with partners, such as international strategic alliances with General Motor Europe in 1996 (Midler et al., 2002), and Nissan in 1999.

Renault's success is because it operates more like a private MNE, which pursues profitability. The French state supports Renault in its financing. For instance, on February 2009, the French government approved around \$4 billion to Renault (Henry, 2009). The state objective is to maintain employment and output in France. However, the state does not interfere with Renault's major corporate strategies and decisions (e.g. the choice of car models). For instance, Renault had to purchase firms that were in trouble upon government's requirement. But the decision was made by managers, who chose those firms that support Renault's activities (Freyssenet, 1998). The top management team communicates with the French State on corporate strategies and activities while having a great extent of management autonomy. This has been called the "French style" of running a state owned multinational (Renault Club, 2008).

The French government, on the one hand, supports Renault for production and jobs in the national economy (Henry, 2009), while on the other hand, gives Renault a high degree of autonomy in management and operations (Midler et al., 2002). The motivation of the French government is consistent with one of the motivations that

attract governments to encourage the state ownership in multinationals – to improve the national economy in the global competition (Lamont, 1979).

Old and New Style State Multinationals

In this section, I argue that, due to the dramatic changes in the global environment, SMNEs in the 20th century are different from SMNEs in the 21st century. After explaining their key features as organizational forms, I call SMNEs in the 20th century “old style” SMNEs and SMNEs in the 21st century “new style” SMNEs.

State Multinationals in the 20th Century (“Old Style” SMNEs)

Governments controlled national economy through the control over SOES (Aharoni & Seidler, 1986). Some SOEs were guided to enter into international markets. For instance, SOEs were used to restructure industries in order to be more competitive in the world markets, and subsequently these SOEs quickly changed into state multinationals (Lamont, 1979). In general, state multinationals were under the control of government, strongly committed to government, and had the state’s approval to go international (Mazzolini, 1980). Moreover, the control of governments over state multinationals was often lower than that over domestic SOEs, to encourage the development of SMNEs in the international markets (Stopford, Strange, & Henley, 1991). Due to the protection of the state, state multinationals confronted a lower level of uncertainty when entering new foreign markets (Vernon, 1977). For instance, before China’s market liberalization, COSCO followed government’s requirement to enter into certain countries and obtained government support in personnel, financing. Thus, it did

not face a high level of uncertainty in foreign markets because of government protection within the planned economic system (Jin, 2007).

Western SOEs were forced by their governments to compete in global markets, but also to remain under control of their home governments (Toninelli, 2000). When SMNEs developed corporate strategies, they had to integrate objectives of their home government into their strategic plans. “The stimulating nation-state mix—the nexus—appears to be stronger than the sum of its parts, a totally new and formidable force in the international economy” (Lamont, 1979: 110). In order to achieve success in the global market, state multinationals needed commercial autonomy to both deal with complex conditions in foreign countries and achieve governments’ national goals.

In developing and emerging countries, SOEs’ international activities were different from those in Western SOEs. For instance, outward foreign investment in the COMECON countries was totally made by SOEs due to a state monopoly (McMillan, 1987). Not only the ownership, but also the administrative control, was under the supervision of state agents. Thus, SMNEs had less autonomy than those SMNEs from developed countries and even other developing countries. State owned and centrally controlled firms were instruments to realize national policies (Aharoni & Seidler, 1986). As a result, the state made the decision of foreign direct investment and the rules of game. Firms just followed and participated in required international activities. The decision making process was centralized, even though guidance might be insufficient and errors might occur (Shiva Ramu, 1986).

Industries, within which firms were owned or controlled by the government and

also multinationalized in the 20th century, were often product diversified, including auto, power, infrastructure, finance, some sectors of manufacturing (e.g. paper, aluminium, and engineering) and energy (Anastassopoulos et al., 1987).

Therefore, the attributes of state multinationals in the 20th century (I call them “old style” SMNEs) are generally characterized as highly influenced by government policies and national objectives and only have limited autonomy in developing corporate strategies and decision making process (Anastassopoulos et al., 1987). Such attributes may vary, depending on the nationality of those state MNEs. Thus, the key features of old style state multinationals are similar to those of SOEs to a high degree.

Dramatic World Changes: International, National and Industrial

The Berlin Wall fell in 1989. Since then, the world has changed dramatically in global economic development (Ohmae, 1995; Vernon & Kapstein, 1992), manifested at international, national and industrial levels. These changes have highly influenced the development of state multinationals.

At the international level, globalization, collaboration, and changes in regulations influenced the growth of state MNEs. First, restraints imposed by superpowers (the United States and former Soviet Union) on other countries do not exist any longer (Ohmae, 1995). The fast growth of European countries and the economic boom of developing countries ended U.S. dominance in the global economy (Vernon & Kapstein, 1992). Also, the fast-developing technology strongly drives the world towards a converging global market (Hitt et al., 2009). Moreover, the easily transferred information brings people’s tastes and preference together and movement of factors such as people

and capital across borders become more easily (Ohmae, 1995).

These changes result in the emergence of standardized products that enable enormous economies of scale in MNE activities such as production, marketing, and management. The trend of globalization in those value-added activities comes together with the increase in the volatility of changes, due to increased competition and imbalanced economic development around the world (Tan, 2002). Hence, state multinationals may confront more frequent and more intensive competition in the more volatile global market than before, which may influence their strategic decisions as well as the state-SMNE relationship. Thus, SMNEs may not be able to depend on governments for protection, such as compensation for significant losses and resource allocation (Tan & Tan, 2005), from coping with risks in such turbulent global environment as before.

Second, collaboration becomes more crucial during the trend of globalization for MNEs both from developed countries and from developing countries (Hamel, Doz & Prahalad, 1989). International trade continued increasing at a fast pace, the world's technological pool kept widening due to new technologies continuously invented in different countries through innovation, and the structure of large international firms changed to adapt to the new global environment (Dunning, 1995). Thus, national economies are more dependent on one another than ever before and on foreign technology.

Moreover, in order to create more national wealth and improve national competitiveness, governments take advantage of SMNEs to strategically cooperate with

foreign MNEs and encourage SMNEs to enter into foreign markets (Dunning, 1995). For instance, the Chinese government encourages firms to build strategic alliances with foreign MNEs to obtain advanced technologies and improve Chinese firms' competitive capabilities (Hitt et al., 2009). Structures of enterprises had changed to resemble multinational network in the world markets and there was strong trend toward international diversification in firms with advanced technological capability (Vernon & Kapstein, 1992). Through different types of collaboration (e.g. contractual agreements or strategic alliances), firms are more involved in international cooperation (Dunning, 1995). Thus, SMNEs may depend more on international collaboration, manifested in their international strategies and structure.

Third, international institutions established new codes and regulations that help the growth of SMNEs in the changing environment. Graham & Marchick (2006) review postwar efforts at making rules on FDI and argue that at the international level, WTO, OECD, UN, World Bank and IMF continuously set rules to guide the flow of FDI and the operations of MNEs. They also recognize the regional approaches on international investment and MNEs. All these efforts established a series of institutionalized rules to influence the development of MNEs.

Moreover, international institutions also realize the importance of state ownership in fostering economic growth. Both the International Monetary Fund and the World Bank have assisted in financing privatization in developing countries since 1990s, which accelerated the privatization process in those countries (Bortolotti & Perotti, 2007). The World Bank published a research report on "government ownership" in 1995

and investigated the role of state enterprises in output and investment. Based on the analysis of state enterprise reform experience, the Bank provides suggestions to assist in reforming state enterprises in order to reduce bureaucracy and improve their performance (World Bank, 1995). Furthermore, OECD has done research on the development of SOEs from 1998, and published guidelines on corporate governance of SOEs in 2005. The guidelines represent the first international benchmark to assist corporate governance and help SOEs improve performance (OECD, 2005). Therefore, the great changes in the international regulations for MNEs and SOEs will make SMNEs better adapt to the global competitive environment.

At the national level, privatization, the improvement in host and home country institutional environment and the existence of institutional voids can be identified, all of which affect the existence and development of SMNEs. First, the process of privatization brings private ownership, reduces the state ownership in state owned multinationals (Kikeri & Kolo, 2006; Gupta, 2005) and transforms firms in terms of organizational values, cultures, and strategies (Zahra et al., 2000). From late 1970s to late 1990s, privatization has obtained more and more attention from different countries, and it has helped governments in many countries and regions reduce their economic role (Yarrow, 1986; Megginson, Nash, Netter, & Poulsen, 2004). Privatization reached its peak in 1997 with a value of US\$ 157 billion for the global market (OECD, 2002), which signifies the fall in the twentieth-century of state owned enterprises, especially in the Western world (Toninelli, 2000).

Privatization has substantially reduced state ownership in Central and Eastern

Europe, and the largest developing economies such as Brazil and Mexico (Kikeri & Kolo, 2006). For instance, although Mexican government nationalized its banking system in early 1980s, during the global trend of privatization, it privatized most of its banks from 1990s to increase the efficiency of those banks (Karaoglan & Lubrano, 1995). The literature suggests that private ownership is more efficient than public ownership and privatization leads to increased efficiency and profitability (e.g. Megginson, Nash, & Van Randerborgh, 1994; D'Souza, Megginson, & Nash, 2005). For instance, privatization brings national and organizational changes, which may improve organizational learning, and enable the firm to access more technological opportunities and business networks (Zahra et al., 2000). In state owned enterprises, agency conflict generally leads to the inefficiency, where managers lack incentives and proper monitoring (Vickers & Yarrow, 1988). Moreover, such agency conflict also results in the lack of efficiency in employment, investment and choice of production and location due to political interference (Shleifer & Vishny, 1994). After privatization, managers have to confront market forces and be responsible to increase shareholder value, and thus are willing to take risks and devote to entrepreneurial activities for innovations (Hoskisson, Hitt & Hill, 1993; Rodriguez, Espejo, & Cabrera, 2007). Privatization also brings dramatic changes in organizational structure and culture, e.g. downsizing and faster decision making through flattened structure (Zahra et al., 2000). Therefore, the incorporation of different types of ownership through privatization helps the firms increase their efficiencies (Uhlenbruck & De Castro, 2000).

Second, under such new international contexts, many countries are taking efforts

to consciously attract inward FDI and encourage outward FDI through the improvements in their institutional environment on regulation and legal systems, infrastructure, and market structure (Globerman & Shapiro, 2002; Ghemewat, 2003; Galan et al., 2007; Flores & Ruth, 2007). Both host country environment and home country environment influence the growth of MNEs, either private or state-owned, either from developed economies or from developing and emerging economies (OECD, 2002; UNCTAD, 2006). For instance, in order to attract more FDI, governments in host countries improve their macroeconomic and institutional environment and upgrade their infrastructure and technology and human competences (Globerman & Shapiro, 2002).

Meanwhile, in order to augment national competitiveness, governments in home countries have encouraged technology transfer and international trade through continuous liberalization and deregulation in the economy (OECD, 2002). For instance, the value of stock exchanges in BRIC countries has continued to grow in last decade, according to the IMF statistics (Lu, 2007). The boom in the capital market has helped to attract both foreign corporate and institutional investors. Consequently, extra capital has been brought in to fund international expansion, advanced knowledge can be absorbed in and the management of multinationals can be improved (Gillan & Starks, 2003). Thus, the participation of foreign investors is especially important to SMNEs from developing and emerging economies (Khanna & Palepu, 1999). Therefore, SMNEs have both better host and home environment conditions in order to further expand into international markets.

Third, institutional voids exist in imperfect markets and the effect of institutional

voids on the development of SMNEs has seldom been discussed in the literature. Institutional voids exist in one country when a formal set of institutions to help the market to function smoothly cannot be fully provided in this country (Khanna & Palepu, 2000; Khanna & Rivkin, 2001). Institutional contexts affect economic growth and the degree of their efficiency is dependent on the presence of specific intermediaries (Spulber, 1996). The institutional context in developed countries like the U.S. is regarded as efficient with specialized intermediation. However, institutional voids exist in imperfect markets like emerging and transition countries with a variety of market failures (Khanna & Palepu, 2000; Khanna & Rivkin, 2001; Guillén, 2000). For instance, in the financial markets where there is little transparency in terms of information disclosure, regulations are not effective in monitoring corporate activities, and thus there are always issues on corporate governance.

With such market imperfections, the literature suggests that business groups can substitute for institutional voids (e.g. Khanna & Palepu, 2000; Khanna & Rivkin, 2001; Guillén, 2000). However, government intervention in SMNEs may also be considered an alternative to deal with issues generated by institutional voids. For instance, because of the imperfect development of financial markets, an MNE may counter difficulties in financing its international expansion. With government support in finance, a state multinational will find it easier to access needed capital (Vaaler & Schrage, 2009). Therefore, for those countries with institutional voids, the interference from government supervisory agents benefits the growth and development of SMNEs.

At the industry level, there are still some state multinationals, which are

generally located in key sectors. Till 1990s before privatization and the market liberalization, state ownership was pervasive in many industries in Western Europe and in developing countries (Thomas, 1986). These industries includes aerospace, steel, telecommunications, railways, gas, computer and electronics, airlines, mining (e.g. coal), petroleum, and automobiles. And in France, Italy, U.K., Mexico, Brazil and India, the largest MNEs were generally owned by the state respectively (Walters & Monsen, 1979).

Currently, after two decades of privatization, in industries such as manufacturing and services, private firms are generally dominant (Kikeri & Kolo, 2006). However, in strategic sectors such as infrastructure (power, telecommunications, transport and water), finance and energy, government ownership and operation are still widely spread (Desvaux, Wang, & Xu, 2004; Green & Liu, 2005). On one hand, government restricts the entry of private and foreign enterprises into some key sectors, such as aerospace and railways, for the sake of national security. On the other hand, the government, especially those from developing countries, still has strong initiatives to support national economic growth and control national key industry sectors in the exploitation of raw materials, such as oil and gas (Kikeri & Kolo, 2006). Therefore, we can see a concentrated industrial distribution of SMNEs in the current global market.

State Multinationals in the 21st Century (“New Style” SMNEs)

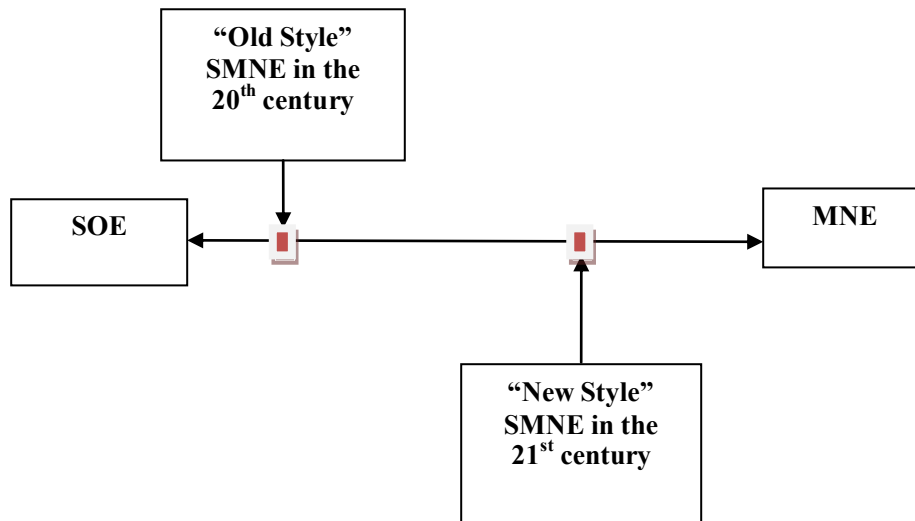
Given the great change in the new global environment, the phenomenon of SMNEs has also changed dramatically. SMNEs still exist in the business world. However, there has been to date little research on SMNEs in the 21st century (new style SMNEs). Thus, I propose today’s SMNE, the new-style state multinational, exists as a

hybrid organizational form.

In the current global environment, today's new style state multinationals are experiencing dramatic changes as an organizational form. As explained in Chapter I, today's new style state multinational is defined as a state owned or controlled MNE with at least 10% state ownership in my dissertation. This definition is different from that of the old style SMNE in the 20th century, an MNE with more than 50% state ownership (Anastassopoulos et al., 1987).

Based on the comparison of the SOE and the MNE, I propose that, as organizational forms, the SOE and the MNE may be considered two extremes along a continuum in terms of their key features. The old style state multinational and the new style state multinational are typically located in the middle, while the new style state multinational is located closer to the right end (Figure 2.5). As explained before, the old style SMNE behaves similar to an SOE because of a high level of control from government. Today's new style state multinational exists with these tensions because of the coexistence of state ownership and multinational orientation, leading to its unique characteristics and location closer to MNEs.

Figure 2.5
Positions of SMNE in the SOE—MNE Continuum



Below I develop several propositions comparing multinationals with state ownership (new-style SMNEs) and without state ownership (private MNEs). These propositions illustrate the impacts that state ownership can have on the MNE in the new global environment.

Goals

MNEs are profit oriented (Caves, 1996) and focused on achieving a certain level of average efficiency (e.g. Tan & Tan, 2005). In contrast, SOEs are generally constrained by government objectives (Lin, Cai & Li, 2001), and not productivity oriented. With both characteristics of MNEs and SOEs, a state multinational, on the one hand, has the intention to improve its performance when the enterprise expands internationally. On the other hand, the SMNE is owned by the government or still under government guidance, and thus restrained by government objectives, which may be divergent from the aim for

profits for typical private MNEs (Luo & Tung, 2007). This type of tension embedded in the SMNE may prevent it from purely targeting profits when establishing its goals, management, and operations. Therefore, I propose that

Proposition 1. SMNEs are, on average, less profit oriented than MNEs.

Corporate Governance

To be more efficient and compete with domestic and international competitors, state multinationals were restructured and/or privatized in 1990s, and many are now publicly listed on stock markets (Tan & Peng, 2003). Thus, corporate governance of SMNEs in the 21st century, in general, may be more effective than that of SMNEs in the 20th century because of monitoring from other shareholders (Ricketts, 2002). Moreover, under the current new global environment, state multinationals have a higher level of management autonomy than old style SMNEs, because government may reduce its interference in corporate governance to encourage SMNEs to improve their profitability (Tan, 2002).

However, state multinationals still suffer from bureaucratic obstacles and political intervention from governments (Luo & Tung, 2007). Moreover, a state multinational has to commit to the government besides their commitment to other shareholders. Continuation of agency problems due to state ownership can be especially troubling when competing in a changing international environment with pressures of increased competition, complexity and dynamism (Tan, 2002). Besides confronting problems in corporate governance what will be experienced when state multinationals go abroad, they face additional corporate governance issues due to the intervention of

governments. Thus, the corporate governance issues may be more complex for an SMNE than for a private MNE. Therefore, I propose that

Proposition 2. SMNEs, on average, confront a higher level of corporate governance complexity than MNEs.

Organizational Structure and Culture

After the restructuring and privatization in 1990s, state multinationals now have a higher level of autonomy and are under less control of the government (Tan & Tan, 2005). In order to compete successfully in the severe competition of international markets, the management may not prefer a hierarchical structure for control. Organizational culture will be more market oriented (Ralston et al., 2006).

However, state multinationals are still under some governmental influence or guidance. Due to this influence, state multinationals have less power than MNEs in strategic decisions, resulting in a final choice that is not optimal (Luo and Tung, 2007). Thus, compared to MNEs, SMNEs still have a lower level of autonomy to decide on their organizational structure. Therefore, I propose that

Proposition 3. SMNEs, on average, have a lower level of autonomy in establishing organizational structure than MNEs.

External Environment

As explained before, the global environment has changed dramatically at international, national, and industrial levels. Involved in foreign operations and headquartered in home countries, SMNEs have to abide by both home country and host country policies and regulations for legitimacy. However, due to the existence of state

ownership, SMNEs are constrained by home country government in several areas such as business policies (Lin, 2004). Thus, SMNEs have a more certain home country environment than MNEs. Moreover, SMNEs may obtain institutional support from governments in order to compete successfully in international markets (Luo & Tung, 2007). Thus, they may experience less uncertainty than private MNEs.

Industries that are still owned or controlled by the government and also active in international markets are generally located in key sectors such as power, infrastructure, finance, and energy. Thus, I propose that

Proposition 4a. SMNEs, on average, experience a lower level of uncertainty than MNEs in the external environment of both home and host countries.

In addition, state multinationals have to deal with both host and home country governments to improve their performance and achieve their goals. In home countries, they obtain direct support from governments on financing, business policies, and business relationships⁴ (OECD, 2002), thus greatly reducing their level of uncertainty (see the Renault case described earlier in this chapter). In host countries, they confront similar external environments with multinationals from other countries. They may obtain support from home country governments when they have to settle down critical issues (see COSCO case). However, such support may not as direct and comprehensive as the support they obtain in home country environment. Thus, although the environment in host countries for SMNEs may be less certain than that for MNEs, SMNEs confront an even less certain home country environment than other multinationals. Therefore, I

⁴ Governments include federal/central governments and local governments, since both types of governments intervene with SMNEs' operations based on their corporate structures (e.g., Luo, 1995).

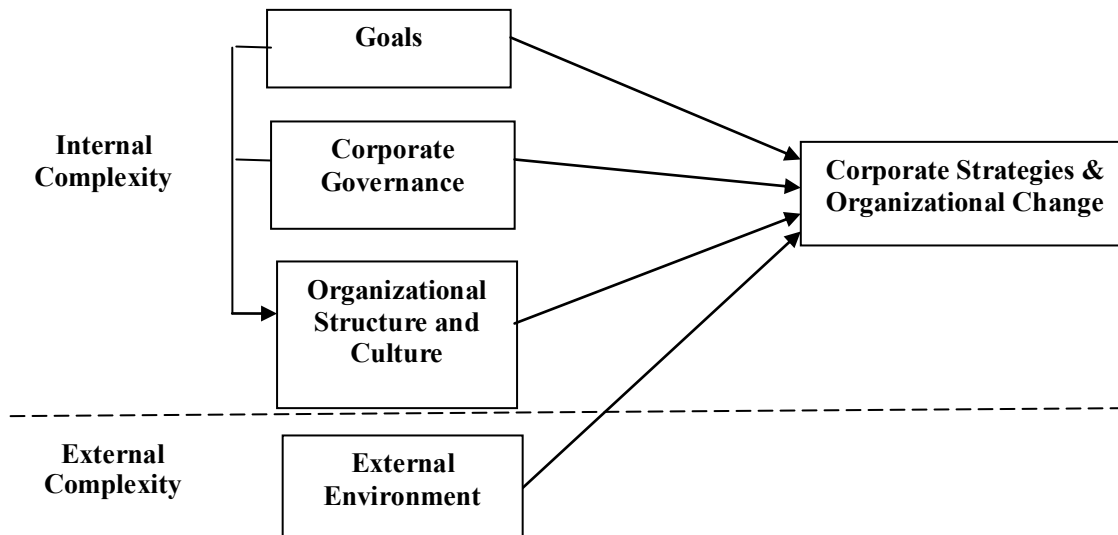
propose that

Proposition 4b. The difference in the level of uncertainty between SMNEs and MNEs is greater in home countries than in host countries.

Strategies and Change

The tensions, as explained above, in terms of goals, corporate governance, and organizational structure generate internal complexity for SMNEs. The situation in the external environment creates external complexity for those firms. Both internal and external complexity in the SMNE as a hybrid organizational form influences how it makes corporate strategies and its ability to change (Figure 2.6).

Figure 2.6
Complexity for the New-Style SMNE



MNEs generally act proactively in the international markets and are flexible in their ability to change (Doz et al., 1990). Thus, they invest in innovative activities to win the competition in the global market. With this characteristic, today's state multinationals are more likely to take risks in the international markets and may have a lower level of

organizational inertia than old style state multinationals.

Moreover, due to the existence of state ownership in SMNEs, as explained above, they may confront a lower level of uncertainty in the external environment than MNEs. Hence, they should be able to invest more in risky activities in international markets.

However, government still guides or controls those firms, even when state multinationals expand into international markets. Those firms experience government intervention in terms of investment strategies and implementation (Luo & Tung, 2007). Thus, SMNEs have a lower level of autonomy in strategic decisions in international strategies and related risk-taking activities than other MNEs.

Tension exists when SMNEs may be more proactive but restrained by government interference while making strategic decisions and changes. Thus, both internal and external complexity confronted by SMNEs make them have more difficulty than private MNEs in terms of decision making on strategies and changes. Therefore, I propose that

Proposition 5. SMNEs, on average, have more difficulty in making strategic decisions on corporate strategies and organizational changes than MNEs.

Outcomes

The strategic management literature tells us that firms can achieve strategic competitiveness and improve firm performance when they formulate and implement strategies successfully (Hitt et al., 2009). As proposed in Proposition 1, SMNEs are generally less profit oriented than MNEs. Moreover, compared to MNEs, they have difficulty in making strategic decisions (Proposition 5), a higher level of corporate

governance complexity (Proposition 2) and a lower level of autonomy in establishing organizational structure (Proposition 3). Considering these important steps leading to any improvement on efficiency, SMNEs are generally at competitive disadvantages to MNEs, and thus less profitable than SMNEs. Therefore, I propose that

Proposition 6. SMNEs are, on average, less efficient than MNEs.

Summary

It is well known in the literature that SOEs and MNEs are different organizational forms. What characterizes a state multinational, which has characteristics of both an SOE and an MNE? To clearly answer this question, I start by explaining MNEs and SOEs are organizational forms by their key attributes, such as corporate governance, structure, and strategies and change. I then suggest a tentative typology of SMNEs and further give two typical illustrative firm examples to track the quadrant changes in types of SMNEs.

The comparison between MNEs and SOEs helps me to move forward to investigate SMNEs as an organizational form. Explaining the main features as an organizational form, I distinguish state multinationals in two time periods (“old style” in the 20th century vs. “new style” in the 21st century) because of the global environment changes at international, national, and industrial levels. By doing so, I find differences in key features of SMNEs from those of SOEs or MNEs. I further suggest a series of propositions to argue that today’s new style SMNE as an organizational form is different from the MNE. These propositions are testable by using surveys to collect data and

measure constructs involved. I conclude that today's SMNE exists as a hybrid organizational form.

Before further empirical tests on the above propositions presented in this chapter, it is better to first know what happens inside the SMNE. Thus, I am motivated to conduct research on the impact of state ownership on SMNEs' organizational activities, such as their corporate governance and different types of strategies. In Chapter III, I narrow my research topic to SMNEs' corporate governance and investigate how the existence of state ownership influences SMNEs' international diversification and performance. Moreover, I consider the influence of SMNEs' external environment and compare the influence of different home country environment on the relationships on state ownership and international diversification. Followed is Chapter IV on methodology, empirically testing proposed relationships involved in Chapter III.

CHAPTER III

THE IMPACT OF STATE OWNERSHIP ON INTERNATIONAL DIVERSIFICATION AND FIRM PERFORMANCE OF STATE MULTINATIONALS

Introduction

In Figure 3.1, I first present an overall framework of research on today's new style SMNE. I, then, follow the corporate governance and strategic management streams to introduce the research focus of this chapter. I review managerial changes of SMNEs acknowledged in the literature and suggest that corporate governance of today's SMNEs is worthwhile to explore under the current global environment. By analyzing agency problems and support from the state due to the existence of state ownership in MNEs, I explore the effect of state ownership on the SMNE's international diversification and then on firm performance. Recognizing the beneficial influence of institutional ownership on corporate governance, I also investigate the moderating effects of institutional investors on the mitigation of agency problems. The figure in page 87 summarizes the major theoretical arguments addressed in this chapter, which I develop below.

Having identified today's new style SMNE as a hybrid organizational form, I recognize that because of the global environmental changes, the new style SMNE in the 21st century has unique key features as an organizational form. Thus, an important research question arises: How does this new style SMNE operate and improve its

The research framework suggests broader research directions than I can address here. Based on the framework developed from the analysis in Chapter II, I narrow my research by focusing on the corporate governance and strategic management research streams. As explained in Chapter II, the new style SMNE has characteristics both from the SOE and the MNE, the ‘parents’, but is closer to the MNE. Thus, it is worthwhile to do a comparison between the new style SMNE and the MNE. The major research question arises of how state ownership influences the new style SMNE’s strategies and performance. In Chapter II, I have already explained the rationale for SMNEs from both developed and developing countries to expand into international markets. The fast growing international activities of state multinationals is the motivation behind the research ideas of my dissertation. Thus, among corporate goals, strategies and structure, international diversification draws the first attention. Therefore, I investigate the impact of state ownership on international diversification and firm performance of SMNEs.

I also examine the influence of home country institutional environments on the relationships proposed in the first two hypotheses. From an institutional perspective, institutional environment affects firm strategies and institutional voids exist in developing economies. In those countries, governments play an important role in shaping SMNEs’ strategic behavior, functioning as a substitute for institutional voids. Thus, proposed relationships between state ownership - international diversification vary between developed countries and developing and emerging countries.

Managerial Challenges of SMNEs

As explained in Chapter II, a firm can go either way to become a state multinational due to different motivations and coercive pressures, i.e. from an SOE to an SMNE or from an MNE to an SMNE. The existence of SMNEs has always been recognized as a managerial challenge in the literature due to related agency issues (Negandi et al., 1986a). State multinationals often encountered problems with corruption, administrative obstacles and managerial incentives, and were in goal conflict between maximizing profitability and output /employment (Stopford et al., 1991). SMNEs confronted more complex competitive conditions in the global market as explained in Chapter II. Moreover, consideration for firms' profitability and interests was heavily influenced by the degree of government control. Thus, such problems became more prominent when SMNEs expanded internationally (Zif, 1983) where the divided loyalties within SMNEs reduced their ability to effectively compete in international markets (Stopford et al., 1991). Therefore, the negative influence of dominant government ownership on MNEs' international strategies and firm performance is well acknowledged in previous literature.

Moreover, managerial behaviors of SMNEs may be highly influenced by the existence of state ownership during international expansion. Managers make key strategic decisions in international expansion. Potential managerial opportunistic behaviors may have negative influence on state multinationals' international strategies and firm performance since managers might pursue their own benefits while making strategic decisions to compete and adapt to the changing global environment (Aharoni &

Seidler, 1986). For instance, managerial opportunistic behaviors in state multinationals have been associated with foreign direct investment (Wells, 1983). Because of the goal conflict and lack of incentives, managers are more liable to pursue individual interests through international expansion. During the process of international diversification, managers deal with foreign operations, resulting in information asymmetries (i.e., information may be held by managers without disclosing to owners (Gomez-Mejia & Balkin, 1992)). Thus, agency problems were more likely to occur due to managers' behaviors (e.g., in terms of the degree of autonomy by foreign subsidiaries) on overall corporate strategies, network stability in management structure, and entrepreneurial tasks (Lamont, 1979).

Therefore, previous literature suggests that the management of SMNEs implies complex agency problems and greatly affects firm objectives, strategies and performance (Lamont, 1979; Negandi et al., 1986a; Stopford et al., 1991). The ability of an SMNE to manage the complexity of balancing national objectives set by the government and strategic objectives of the firm's own international expansion highly influences the SMNE's success in the global markets (Anastassopoulos et al., 1987).

As explained in Chapter II, the world has changed dramatically in global economic development (Ohmae, 1995). At the international level, SMNEs are no longer as sheltered and protected by governments as before, and face more competition in global markets. Strategic alliances have become important for international competitiveness. Thus, governments encourage their state owned firms to strategically cooperate with foreign MNEs and enter into foreign markets (Dunning, 1995). Moreover,

international institutions have established new codes, guidelines and regulations to help the growth of SMNEs, e.g. the OECD 2005 guidelines on corporate governance of SMNEs (OECD, 2005).

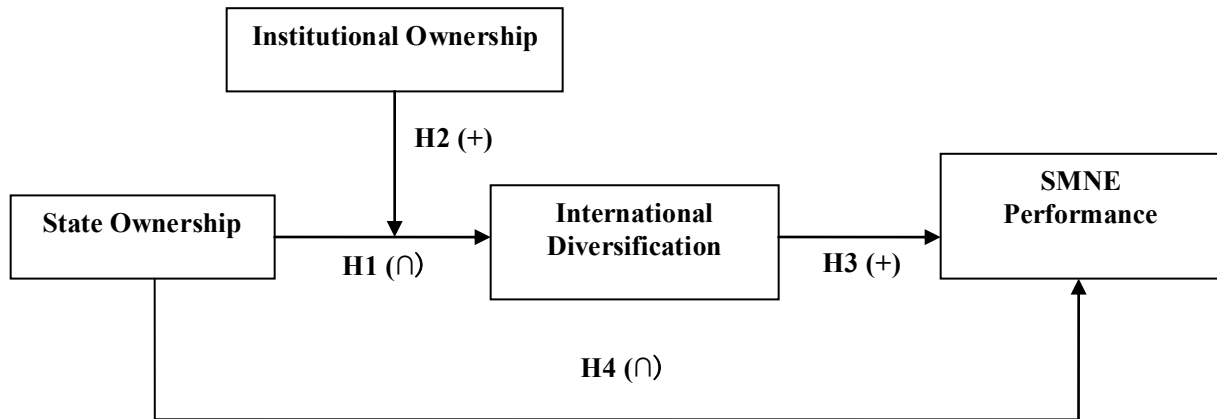
At the national level, privatization has substantially reduced state ownership in Central and Eastern Europe, and in large emerging economies such as Brazil and Mexico (Yarrow, 1986; Kikeri & Kolo, 2006; Zahra et al., 2000a; D'Souza, Megginson, & Nash, 2005), resulting in different types of MNEs with state ownership, such as Renault in France (around 15%), and Indian Oil (around 80%). Moreover, many countries are taking efforts to improve their institutional environments to attract inward FDI and encourage outward FDI. Thus, SMNEs have both better home and host environments to help the firms further expand into international markets (UNCTAD, 2006). At the industry level, after two decades of privatization and liberalization, SMNEs are more concentrated in strategic sectors such as infrastructure (power, communications, transport and water), finance and natural resources, because governments may restrict entry of other types of firms in key sectors and/or intend to control strategic sectors to support national economic growth.

Consequently, SMNEs have changed greatly in the new global environment. On one hand, governments may provide support for SMNEs depending on their extent of state ownership. On the other hand, SMNEs may confront similar corporate governance challenges to those that affected these firms in the 1970s and 1980s (e.g., Stopford et al., 1991). Thus, as proposed in Chapter II, in terms of corporate governance, SMNEs must operate with a higher level of complexity than that of MNEs (Sanders & Carpenter,

1998). Therefore, how to manage today's SMNEs is an important research question worthy of investigation (Vaaler & Schrage, 2009).

I narrow my research focus from the big framework and concentrate on the influence of state ownership on international diversification and performance, as shown in Figure 3.2, through the lens of corporate governance and international business.

In addition, because of management challenges faced by SMNEs and also because my samples are public listed SMNEs, I consider including institutional ownership as a moderator to investigate whether the participation of institutional investors helps to monitor management and constrain managerial opportunistic behaviors during SMNEs' international expansion (Pound, 1992; Tihanyi et al., 2003; Useem, 1996). Institutional investors as equity holders include "bank trusts, insurance companies, investment companies (mutual funds), investment advisors (brokerage firms), pension funds, and endowments with at least \$100 million in equity (Grinstein & Michaely, 2005)" (Dalton, Hitt, Certo, & Dalton, 2008: 29). The literature on corporate governance tells us that these large shareholders may actively participate in monitoring and controlling management, and thus influence a firm's significant strategic decisions (Dalton et al., 2008). In this study, institutional ownership is considered one of mechanisms that will influence the effectiveness of corporate governance of SMNEs. Therefore, as shown in Figure 3.2, I investigate its effects on the state ownership-international diversification relationship in terms of corporate governance.

Figure 3.2**Model of State Ownership, International Diversification and SMNE Performance****Institutional Environment and Institutional Voids**

For the first two hypotheses, I also consider the influence of home country institutional environment. As already discussed, home country and host country environments influence the development of SMNEs (OECD, 2002; UNCTAD, 2007). Previous research suggests that home and host country institutions have different influences on SMNE development. For instance, in 1970s, the Indian government had limitations and requirements for outward FDI (e.g. entry modes). Brazil also required approval of investment through control procedures (Wells, 1983).

In the new international environment, governments in either host or home countries endeavor to improve their country environments. Recent research suggests the improvement on the host country environment on regulation and legal systems, infrastructure, and market structure (e.g., Galan et al., 2007; Guler & Guillen, 2010; Flores & Ruth, 2007) attracts inward FDI and improve national competitive capabilities.

However, little study has been done on MNEs in terms of their home country environments (Wan & Hoskisson, 2003; Shinkle & Kriauciunas, 2010), not mentioning studies of influence of home country environments on SMNEs. Thus, research on home country institutional environments and their effects on SMNE strategies and performance would give high added value and insights to the understanding on SMNEs.

Institutions are a series of rules that guide conducts in the areas of politics, law and society and are reflected through, e.g., rules of laws, government regulations, and the regulation of capital markets (North, 1990; Scott, 2001). When conducting research on multiple countries, institutional theory should be considered, because different levels of institutional efficiency greatly influence firm strategies and performance (Hoskisson et al., 2000; Guillen, 2000; Guler & Guillen, 2010; La Porta, Lopez-de-Silanes, Shleifer, & Vishey, 1998).

The institutional environment in developed countries such as the United States is considered efficient with well-established rules and regulations. However, institutional voids exist in emerging and transition countries with a variety of market failures (Khanna & Palepu, 2000; Khanna & Rivkin, 2001; Guillén, 2000). For instance, Khanna & Palepu (2000) argue that government policies are not stable, regulations are not investor oriented, and there is a lack of system to protect property rights as well as a lack of transparency through information disclosure.

In economies with such market imperfections, the literature suggests that business groups substitute for institutional voids (e.g. Khanna & Rivkin, 2001; Guillén, 2000). However, the government role in SMNE activities has been ignored when dealing

with institutional voids (Djankov, Glaeser, La Porta, Lopez-de-Silanes, & Shleifer, 2003). For instance, without the existence of political stability, a firm may suffer from an unstable business environment and investors may suffer from policy instability (Doh, Teegen & Mudambi, 2004). Due to the interference from the state, the firm may obtain help from the state to cope with the unstable business environment through beneficial policies or government endowment. In this case, state ownership can be considered an alternative to substitute for institutional voids (Doh et al., 2004). Different developing countries may have different levels of institutional voids in terms of political stability, regulatory quality, and rule of law (Kaufmann, Kraay, & Mastruzzi, 2007). Therefore, this chapter focuses on the influence of home country institutional environment on the state ownership-international diversification relationship.

State Ownership and International Diversification

Agency theory asserts that a large firm is more efficient with the separation of ownership and managerial control (Fama & Jensen, 1983). At the same time, agency problems can occur when owners are unable to effectively monitor managers, and managers display behaviors that are not in the best interests of owners.

The literature suggests that state owned enterprises traditionally suffered from high agency problems due to bureaucratic and obsolete methods of governance (e.g. Luo, 1995; Xu & Wang, 1999). As explained in Chapter II, state multinationals are both motivated and forced to go international because of increased competition and dynamism in the global market. Agency problems in state multinationals have been

especially complex due to the changing international environment (Tan, 2002; Sanders & Carpenter, 1998).

When agency theory is applied to examine the effects of state shareholding on international diversification, a significant negative impact might be expected on international strategies. The literature suggests that state ownership generates comparatively higher agency costs (e.g., Park et al., 2006; Zou & Adams, 2008) and may negatively influence the level of international expansion, especially when SMNEs confront intensive global competition.

First, international expansion for profitability conflicts with government goals for output and employment (Zif, 1983). The divided loyalties may result in a deviation from pursuing profitability through international diversification (Park, et al., 2006). The state may treat SMNEs as the means to realize its own goal. Although SMNEs want to achieve a higher level of international expansion for higher profitability, the state objectives will prevent them from efficiently allocate their resources and capabilities. For instance, when an SMNE lays off some employees to reduce redundancy and invests resources saved in international expansion to exploit new international opportunities, the state may pressure on the firm, preventing it from laying off its employees (Anastssopoulos et al., 1987). The greater the degree of state ownership, the more heavily the target for efficiency from international expansion will be influenced, and thus a higher level of conflict will be expected.

Second and subsequently, managers can easily pursue opportunistic behaviors during international diversification (Aharoni & Seidler, 1986). Given the conflicting

goals between the state and SMNEs, managers may not be compensated based on firm growth and performance (Zou & Adams, 2008), and thus have not incentives to maximize gains from international expansion. Moreover, managers of SMNEs may have a low level of autonomy in making international strategies (e.g., the choice of modes of entry or the location choice) than managers of private MNEs (Luo & Tung, 2007), and thus firm profitability of SMNEs will not be managers' main concern when managers decide to enter into international markets. Therefore, managers may not be profit oriented and do not seize new opportunities in international markets, but use strategic decisions on international expansion to further their self interests, such as individual economic gains or promotion opportunities (Morck, Yeung & Zhao, 2008).

Third, an international expansion strategy makes the situation more complex to manage (Sanders & Carpenter, 1998; Hitt et al., 1997) due to bureaucratic and administrative obstacles (Stopford et al., 1991), leading to a loss in management efficiency (Park, et al., 2006). As explained in Chapter II, when entering international markets, SMNEs confront a higher level of difficulty in strategic formulation and implementation than MNEs due to internal and external complexity. Subsequently, international diversification is expensive due to the costs of managing diversified operations (Lu & Beamish, 2004), especially for SMNEs. Therefore, corporate governance of SMNEs is more complex for managers to deal with than that of private MNEs as explained in Chapter II and related agency costs are expected to be high.

However, in the context of SMNEs, the negative influence of state shareholding on international diversification may not hold when the state does not hold a majority

ownership (Vaaler & Schrage, 2009). First, related agency problems may be mitigated to some extent by a forward-looking government's efforts to reduce its interference in governance (Tan, 2002). In order to improve national competitiveness, governments may encourage state owned firms to expand into international markets and collaborate with foreign MNEs, for example, through international strategic alliances (Dunning, 1995). To successfully compete in international markets, SMNEs typically need less control from the government than SOEs competing in domestic markets (see Chapter II). Thus, governments may endow a higher degree of autonomy and flexibility to state multinationals in terms of corporate governance.

Second and subsequently, managers of SMNEs may have more incentives and become more willing to invest in innovative and risky activities proactively (Tan & Tan, 2005), such as international expansion, to improve their performance. First, given a higher level of autonomy in decision making in international expansion, managers may grasp international opportunities to have the SMNE enjoy benefits of international diversification for improved profitability (Luo & Tung, 2007). Second, after privatization and market liberalization, there are more incentives to monitor SMNEs' effectiveness of management (e.g., the increase in institutional ownership and incentives of supervisory agents), which reduces managers' opportunistic behaviors in the process of international expansion. Therefore, managers will be more motivated to improve SMNEs' profitability through international diversification, rather than pursue their own interests.

Third, government typically provides support to state multinationals to ensure

growth in firm performance (Bortolotti & Perotti, 2007; Luo & Tung, 2007). As explained in Chapter II, governments depend on state owned or controlled multinationals, for instance, to improve the nation's international position and to acquire resources and upgrade national technological capabilities. Thus, SMNEs are generally given favorable treatment or support from the government (Lin, 2004; Luo & Tung, 2007) and often obtain support such as financing, personnel, and international trade policies from the government (Vaaler & Schrage, 2009). Thus, SMNEs are able to build their resources and competitive capabilities necessary to succeed in international competition.

Therefore, I argue that different levels of state ownership may have different effects on an SMNE's international strategies. At a low level of state ownership, the existence of such ownership may be considered a signal of state support for international strategies, especially when a state multinational expands internationally and confronts difficulties in foreign countries (see the COSCO case as an example). As the percentage of state ownership increases, the negative effect on corporate governance may gradually dominate the overall influence on an SMNE's international diversification. Thus, I expect a non-linear relationship between state ownership and the level of international diversification.

Hypothesis 1a: For a state multinational, the relationship between state ownership and international diversification is nonlinear; that is, the higher the percentage of state ownership the more likely is the SMNE to be involved in international diversification until a threshold; after the threshold, the further increase in state ownership hinders the firm's international diversification.

Comparison of the Influence of Home Country Institutional Environment

Home and host country institutions have different impact on firm development (Galan, et al., 2007; Hall & Jones, 1999; Rodrik, 1997). Keefer and Knack (1997) employed divergent indicators of home country institutional quality and found that since economic activity of those firms takes place in the institutional environment, the competitive capabilities of home countries depends on such an environment. Poor countries cannot grow faster than rich countries because of their lag in the quality of institutions.

In the new international environment, home country institutional environment influences the development of SMNEs, both in developed economies and in developing and emerging economies (OECD, 2002; UNCTAD, 2006). Currently, many countries are improving their country environment on regulation and legal systems, infrastructure, and market structure (Globerman & Shapiro, 2002; Ghemawat, 2003; Galan et al., 2007; Flores & Ruth, 2007). Moreover, the boom in capital markets in some countries helps attract foreign corporate and institutional investors that bring in extra capital to fund international expansion and better monitor the management of multinationals (Gillan & Starks, 2003; Kogut, Walker, & Anand, 2002).

In developed countries, political stability, well-established regulations and rules of law as well as the protection system for property rights generate a friendly institutional environment to ensure the development and growth of firms (Vaaler & Schrage, 2009), through strategies such as international expansion. In developing

countries, however, institutional constraints on the above mentioned perspectives negatively influence the development of SMNEs (Djankov et al., 2003). In developing and emerging economies, the level of institutional environments is generally low due to the existence of institutional voids. Thus, the quality of home country institutional environment is especially important to the development of SMNEs in developing and emerging economies (Khanna & Palepu, 1999).

Home country differences in institutional environments influence the behavior of SMNEs in the global markets. State ownership acts as a substitute for established regulations and policies (Henisz, 2001; Djankov et al., 2003; Doh et al., 2004; Vaaler & Schrage, 2009). With a well-developed institutional environment that implies investor-friendly institutions (e.g., rule of law and protection for property rights), the benefits brought by state ownership to show the support from the government will vanish (Vaaler & Schrage, 2009). In contrast, with the existence of institutional voids in developing and emerging markets, the existence of state ownership provides the potential support from government for international investments to deal with market failures (Doh et al., 2004). For instance, Bortolotti and Perotti (2007) find that when there are no effective executive restraints in the corporate governance system, the existence of state ownership may operate as a signal of executive forbearance. However, if the institutions related to a corporate governance system are in place, the importance of state ownership will reduce (Bortolotti & Perotti, 2007). Moreover, based on research in telecommunication infrastructure projects in developing and emerging economies, Doh et al. (2004) suggest when state policies to protect investment in the infrastructure system are not available,

state ownership becomes a substitute for such investment policies. When institutions are lacking, government support will substitute for them to fill in the institutional voids (Doh et al., 2004; Vaaler & Schrage, 2009). Hence, the function of state ownership in developing and emerging economies is more important than that in developed economies for the state ownership-international diversification relationship. Therefore, I propose that

Hypothesis 1b: The relationship between state ownership and international diversification is stronger for SMNEs in developing and emerging economies than for those in developed economies.

The Moderator Effect of Institutional Ownership

Agency theory asserts that due to the significant benefits and risks related with international diversification, investors are interested in this strategy (e.g. Sanders & Carpenter, 1998). Prior research on corporate governance suggests that institutional investors are increasingly active in their role of monitoring and controlling management (e.g., David, Hitt, & Gimeno, 2001; Tihanyi et al., 2003). Pursuing investment returns, institutional investors are more interested in international diversification, whatever their types and relevant strategic targets, and thus benefit a firm's corporate governance⁵ (Tihanyi et al., 2003).

Institutional ownership helps to resolve agency problems, because institutional investors may be able to more effectively monitor managers than other types of

⁵ The average institutional ownership in my three-year sample is 0.23; the average institutional ownership in my seven-year sample is 0.21.

shareholders (Dalton et al., 2008). First, compared to individual investors, with cumulative experiences and expertise, institutional investors have more tools and resources to monitoring, and have a cost advantage (Pound, 1988). Because they invest in a large portfolio of stock, they devote resources in the management of funds involved, e.g., gathering information and professional analysis (Shleifer & Vishny, 1986). Thus, compared to other types of shareholders, they have greater expertise to monitor the management of a firm.

Second, they have coordination mechanisms (e.g., Institutional Shareholder Services and Investor Responsibility Research Center) to guarantee their effectiveness (Grinstein & Michaely, 2005). Because of their amounts in ownership and goals for investment return, institutions may monitor SMNEs with their resources (e.g. established coordination mechanisms). Thus, they can improve an SMNE's corporate governance through effective monitoring.

Third, they may be able to obtain inside information, which will help them monitor the management of a firm (Dalton et al., 2008). Managers may take advantage of information asymmetry to pursue their own benefits in complex contexts (Gomez-Mejia & Balkin, 1992) such as international diversification. When institutional investors have inside information, the level of information asymmetry will be lower, and their monitoring on the management will be more effective.

Fourth, managers need support from institutional shareholders to fund risky and costly international activities for the success in global markets. Thus, managers are forced to be under the monitoring of those investors (Tihanyi et al., 2003).

When the percentage of state ownership is below a certain level and the benefits from the existence of state ownership dominate its influence on the SMNE's management and international strategies, agency problems in corporate governance due to state interference are not severe. In this case, the positive influence of institutional investors on corporate governance may not be prominent enough to affect managers' international strategies. In contrast, when the level of state ownership is above a certain level, related agency problems become a major factor influencing the SMNE's management and its international diversification. In this case, the existence of institutional investors in the MNEs is a signal of better control for more efficient management, which may mitigate the suspect from other investors on the management and then on the expectation of international strategies. For instance, the increase in the institutional shareholdings in certain types of stocks will lead to increasing demand for the stock and subsequently rising prices (Gompers & Metrick, 2001).

Therefore, I expect that institutional ownership moderates the relationship between state ownership and the level of international diversification in such a way that, for SMNEs with a high percentage of institutional ownership, the influence of state ownership will result in a higher level of international diversification than those with a low percentage of institutional ownership. This expectation suggests that because of enhanced monitoring of institutional owners, subsequent better corporate governance, and then more efficient management, the apex of the curvilinear relationship between state ownership and the level of international diversification shifts upward and to the right, that is, the effect of state ownership on the level of international diversification

strengthens.

Hypothesis 2a: Institutional ownership positively moderates the relationship between state ownership and an SMNE's international diversification in such a way that as the percentage of institutional ownership increases, the relationship between state ownership and the level of international diversification becomes stronger.

Comparison of the Influence of Home Country Institutional Environment

Institutional ownership is one mechanism to improve the effectiveness of corporate governance through monitoring (Grinstein & Michaely, 2005). In different home country institutional environments, the influence of institutional ownership may differ. The degree of efficiency of institutional contexts depends on the establishment of specific intermediaries (Spulber, 1996). In developed countries, institutional contexts are considered efficient. Although the state will influence the governance of SMNEs through the existence of state ownership, the power is restrained by the established governance system. Institutional investors may not be affected by the state objectives when involved in the governance structure. Therefore, institutional investors can well perform their monitoring functions on management through well-established systems.

In contrast, in developing and emerging markets, there are a variety of market imperfections, such as the lack of capital market regulations and protection to property rights (Khanna & Palepu, 1997; Khanna & Rivkin, 2001; Guillén, 2000) and institutional voids exist to influence the management of SMNEs (e.g., Henisz, 2001; Doh et al., 2004). SMNEs may need government support to deal with different types of market

failures. Consequently, the influence of governments in developing and emerging economies on SMNEs' corporate governance will be greater than that of governments in developed economies. Hence, the ability to monitor managers of institutional investors investing SMNEs in developing countries, on the one hand, may be hindered due to government's intervention. On the other hand, those institutional investors may not find efficient intermediaries to realize their monitoring effectiveness. Therefore, I propose that

Hypothesis 2b: The moderating effect of institutional ownership on the state ownership -international diversification relationship is weaker for SMNEs in developing and emerging economies than for those in developed economies.

International Diversification and Firm Performance

Previous studies investigating the international diversification—performance relationship have reported inconclusive and controversial findings (Hitt et al., 2006b; Contractor, Kumar, & Kundu, 2007). Some findings suggest a negative influence of international diversification on firm performance (Kumar, 1984), some findings suggest a positive influence (Qian, 1997; Hejazi & Santor, 2009), some findings suggest inconclusive results (Kim, Hwang, & Burgers, 1989; Sambharya, 1995), and some findings suggest complex U-shaped, inverted-U-shaped, or S-shaped associations (Capar & Kotabe, 2003; Contractor et al., 2007; Eden & Thomas, 2004; Hitt et al., 1997). Given that there are no conclusive findings on the international diversification—performance relationship, future research on the relationship are suggested to consider historical and

contextual characteristics (Contractor et al., 2007; Lu & Beamish, 2004).

Hitt, Bierman, Uhlenbruck, and Shimizu (2006) suggest that at an intermediate level, international diversification will positively influence firm performance. Consistent with Hitt et al. (2006a)'s findings, this study also suggests that the level of international diversification positively influences a state multinational's performance.

SMNEs may not be as profit oriented as private MNEs, but they are influenced by government objectives to different extents, depending on the percentage of state ownership. However, governments may encourage SMNEs to enter into foreign markets in order to create more national wealth and improve national competitiveness (Dunning, 1995). Thus, those firms may still intend to benefit from international diversification, such as new business opportunities (Zahra, Ireland, & Hitt, 2000), advanced knowledge in technology and managerial skills (Li, 2006).

The positive effects of international diversification on performance have long been recognized by the literature. First, international diversification is a popular strategic option to obtain sustainable competitive advantages (Nachum & Zaheer, 2005). Second, firms can realize economies of scale and scope, access new resources (e.g. knowledge), reduce cost, and extend its innovative capabilities through international expansion (Hitt et al., 1997; Hitt et al., 2009). For instance, expanding operations in different international markets, firms may be able to realize economies of scale through production standardization, sharing production facilities, and sharing resources and knowledge (Hitt et al., 2009). Third and subsequently, firms can identify new business opportunities in international markets to increase profitability (Zahra et al., 2000).

Fourth, international diversification provides a new alternative to create more value by taking advantages of foreign stakeholders (Hitt et al., 2006b). Thus, I conclude that all these positive effects of international diversification will improve an SMNE's firm performance.

The negative effects of international diversification such as increased governance costs of a high level of international diversification (e.g. Gomes & Ramaswamy, 1999) or the liabilities of newness and foreignness at the beginning of internationalization (Lu & Beamish, 2004) can be mitigated in the case of SMNEs, which are at intermediate levels of international diversification.

For new-style SMNEs, the government may provide support such as financing, personnel and international trade policies to help these firms compensate for mistakes in strategic actions (Rao & Tagat, 1986). While managers can learn how to effectively manage their international operations to reduce costs of doing business abroad (Goerzen & Beamish, 2003; Hitt et al., 2006a), government's support can also enable those firms to mitigate the liabilities of newness and foreignness and generate higher rents from international markets.

In addition, the privatization and restructuring of state owned enterprises reached its peak in 1997 (De Castro & Uhlenbruck, 1997), resulting in new-style of SMNEs in the 21st century. New-style SMNEs with modern governance structures mainly has an early or moderate level of international diversification. Thus, their managers are able to implement international diversification by exploiting firm capabilities (Hitt et al., 2006a). These new-style MNEs may not suffer from a high level of transaction and

coordination costs, and their level of international diversification are unlikely to have passed the international threshold to negatively influence firm performance (Hitt et al., 1997; Hitt et al., 2006a). Therefore, for new-style SMNEs, the higher the level of international diversification, the greater firm performance is.

Hypothesis 3: For a state multinational, the more deeply it is involved in international diversification, the more its performance will be improved.

State Ownership and Firm Performance

The literature suggests that SOEs generally perform worse compared to other types of companies (e.g. Lin, 2004; Luo, 1995; Mazzolini, 1979; Tan, 2002; Xu & Wang, 1999). Prior studies provide evidence that agency costs between governments and managers of SOEs are high because of the lack of effective managerial monitoring and control (e.g., Goldeng et al., 2008; Xu & Wang, 1999; Zou and Adams, 2008). The differences in the objectives between principal (governments) and agents (managers) of SOEs and the lack of incentives to managers to align the interest of the managers and that of the owners eventually lead to negative influence on firm performance (Zou and Adams, 2008; Goldeng et al., 2008).

Due to the existence of state ownership, SMNEs are certainly influenced by governments or supervisory agents (Luo & Tung, 2007). However, different levels of state ownership have divergent effects on SMNEs' performance. When the level of state ownership is low, the government may influence the governance of the SMNE through its state ownership. On the one hand, the negative influence of state ownership may not

be prominent, because the voice and power of the government in corporate governance of SMEs is low, thus producing low intervention in other business management decisions. Managers of SMNEs may have increasing responsibility and autonomy to increase firm efficiencies and improve firm performance through corporate strategies (White, 2000), such as international expansion. On the other hand, the government desires to improve the SMNE's performance (Bortolotti & Perottie, 2007). Thus, when the SMNE needs government support to expand into international markets, the government will react favorably (Lin, 2004; Luo & Tung, 2007) in terms of financing, business relationships and international trade policies (Vaaler & Schrage, 2009). With such support, the SMNE is able to enjoy the benefits of international diversification discussed earlier and then improve its performance.

When the level of state ownership is high, the government interferes with the strategic decisions and operation of an SMNE (Zou & Adams, 2008). The important top management team members may be directly appointed by the government, e.g. CEO and directors, and thus the government may directly intervene with other corporate strategic decisions (Fan & Wong, 2004). Subsequent bureaucratic obstacles begin to play a major role in terms of the state ownership impact (Luo & Tung, 2007). Thus, as the state holding increases, the negative impact of such holding on the SMNE's performance will surpass the positive impact, and eventually harm the firm performance. Therefore, I propose that

Hypothesis 4: For a state multinational, the relationship between state ownership and performance is nonlinear; that is, the higher the percentage of state

ownership the higher its performance until a threshold; after the threshold, the further increase in state ownership hinders the firm's performance.

The Mediation Effect of International Diversification

The relationship between equity ownership, one type of mechanism of corporate governance, and firm performance has long been studied in the agency theory tradition (see Dalton et al., 2008 for a good review). Investors with large block equity in a firm are considered shareholders with concentrated ownership (Dalton et al., 2008). However, how concentrated outside ownership⁶ influences firm performance is seldom investigated in the agency theory literature. In building theoretical support for a mediated relationship, I extend previous work that suggests general linkages among ownership structure, international diversification and firm performance (Hitt et al., 2006b) by providing the understanding of mediation; that is, how international diversification mediates the relationship between state ownership and performance.

With concentrated ownership, shareholders have both the incentives and power to monitor top management teams (Shleifer & Vishny, 1986). Although concentrated ownership itself offers potential impact on firm performance (Dalton et al., 2003), the eventual influence depends on the strategies a firm employs.

International strategies, as one type of important corporate strategies, are adopted by SMNEs to exploit and/or augment their competitive advantages, enjoy the benefits of international expansion and generate increased growth and profitability from

⁶ Concentrated outside ownership includes state ownership in SMNEs as per the definition of the SMNE in Chapter I.

international activities (Hitt et al., 2006b). Thus, international strategies influence SMNEs' overall firm performance. Governments monitor the management of SMNEs based on their percentage of shareholdings. Managers of SMNEs execute their functions by making strategic decisions on divergent types of corporate strategies (here more specifically, international strategies), resulting in different levels of firm performance (Shleifer & Vishny, 1986). This three-step process highlights the role of international diversification in realizing the potential influence of state ownership on firm performance.

Government influences SMNEs' firm performance through the control over SMNEs during their international expansion. For instance, when a state multinational is state majority owned, the CEO may be directly appointed by the government as well as the selection of board directors (Zou & Adams, 2008). In Fan and Wong (2004)'s sample, about 30% state owned firms in China have CEOs that are government officials. Due to the high level of government interference, when the top management team makes international strategies, such strategies may represent government goals, which may deviate from the interest of the firm (i.e., profit maximization) (Park et al., 2006), resulting in a negative impact on firm performance. When state ownership is low, as explained in Hypothesis 4, a state multinational may benefit from government support and improve its performance while maintaining a high level of autonomy in management when it expands into international markets and confronts costs of doing business abroad.

In contrast, government may have control over SMNEs, but the potential influence of such ownership on firm performance depends on how the top management

team makes strategic decisions and implements strategies. Without taking any actions (i.e., implementing international expansion), the potential influence by state ownership will not yield any meaningful performance outcomes.

In conclusion, government influences corporate governance of an SMNE through its state ownership. Corporate governance mechanisms monitor the management team of an SMNE, who makes strategic decisions on and implements international strategies, thus affecting firm financial performance. Therefore, international diversification mediates the relationship between state ownership and firm performance by realizing its value.

Hypothesis 5: For a state multinational, the level of international diversification mediates the relationship between state ownership and firm performance.

Summary

In this chapter, I first present a research framework based on the analysis in Chapter II to investigate the phenomenon of today's SMNEs. I narrow down the research following the corporate governance and strategic management streams, and focus on corporate governance issues of SMNEs. I analyze managerial challenges confronted by state multinationals in the 20th century. I suggest that, in the new global environment, the influence of state ownership of today's SMNEs on international strategies and performance may be specific, different from that of old style SMNEs in the 20th century.

This chapter has explored the influence of state ownership at different levels on international strategies and firm performance of SMNEs. Hypotheses are proposed

regarding how state ownership affects international strategies and performance, depending on the percentage of state shareholdings. The moderator effect of institutional ownership has also included. Furthermore, this chapter proposes a mediation effect of international strategies on the state ownership-performance relationship.

Moreover, this chapter also investigates the influence of home country institutional environment, given the existence of institutional voids. I propose that in developing and emerging markets where institutional voids exist, the government role is stronger in SMNEs to affect their international strategies in terms of corporate governance than that in developed markets. In addition, since states of developing and emerging markets play a more important role in controlling management, the monitoring function of institutional investors in developing and emerging countries is weaker than that of developed countries.

The next chapter describes the research design used to empirically test the theoretical hypotheses proposed in Chapter III.

CHAPTER IV

METHODOLOGY

This chapter describes the research design that is used to test the hypotheses proposed in Chapter III. I present the sample selection, measurement of variables, and statistical models below.

Sample Selection

The best source of data on MNEs with state ownership is Bureau van Dijk's ORBIS database, which provides detailed ownership data of over 200 countries in the world besides normal financial and subsidiary data. As shown in Table 4.1, as of November 2008, the ORBIS database lists 5,468 public quoted firms MNEs (defined as a firm with at least one majority-owned foreign affiliate; i.e. control in the foreign affiliate > 50%) that have some positive percent of state ownership⁷. With a minimum of 10 percent state ownership, the number of state-controlled MNEs drops to 379 firms. With a minimum of 50 percent state ownership, the number of majority-state-owned MNEs drops to 97 firms. My reference group is the middle group of 379 state multinationals; I consider these the most appropriate sample of state multinationals for investigating my research questions.

⁷ The data were collected by November 20, 2008 and the database is updated monthly.

Table 4.1
Key Definitions of Firm Type

Public Quoted	State ownership (>0%)	State ownership (>10%)	State ownership (>50%)
Foreign Sub (>10%)	5,569	395	102
Foreign Sub (>50%)	5,468	379	97

Source: Bureau van Dijk's ORBIS database, collected on November 20, 2008.

When collecting data, I do not include the banking industry due to the difference in accounting rules from other industries. Thus, my initial sample size is reduced to 278. The sample is also limited by the availability of data on the main variables involved in this study. For instance, missing ownership and performance data result in the reduction in my samples. Because of the potential problems by involving missing data when applying analytical methods (Schonfeld & Rindskopf, 2007), if I could not find information on both ownership and performance of a firm, which are the main variables in my initial sample, I do not include the firm in my final sample.

Because the BVD database only has detailed ownership information for all firms from 2004 to 2007 and major ownership structure (i.e. top ten shareholders) from 2000 to 2007, I conduct two tests to examine my hypotheses. In Test 1, I collect four-year data on ownership structure, subsidiaries and financial information 2004 to 2007 for all my samples. In Test 2, I collect eight-year data from 2000 to 2007, for firms with major ownership structure in the database. By so doing, I check the consistency of my analytical results.

The international diversification literature suggests that a one-year lag best reflects a typical planning cycle (e.g., Geringer, Tallman, & Olsen, 2000), and I

accordingly incorporate a one-year lag between the independent and mediator variables and the dependent variables. Thus, for Test 1, I gather data for four years, from 2004 to 2006 for independent, mediator and control variables and from 2005 to 2007 for the dependent variable. For Test 2, I gather data for seven years from 2000 to 2006 for independent, mediator and control variables and from 2001 to 2007 for the dependent variable. For firm level data, I gather information mainly from the BVD database. I collect country level data from the EIU database. In my final sample, for the three-year sample, I have 675 firm-year observations. For the seven-year sample, I have 1372 firm-year observations.

In sum, the empirical tests in Chapter III contain a set of tests on my sample and are conducted twice (the above Test 1 and Test 2). To investigate the impact of home country environment on SMNEs proposed in Hypotheses 1b and 2b, I separate my samples into firms from developed countries and those from developing and emerging markets by incorporating a dummy variable (Developed, explained in the control variables section). Following the definition of the United Nations, I use the Human Development Index (HDI) to identify developed countries. The countries left in my sample are categorized as developing and emerging countries. The HDI index includes an economic measure (national income) and other indices, and thus is a more comprehensive measure than other economic-condition-focused anomalies (such as World Bank's High Income Economies (HIE), and International Monetary Fund (IMF)'s Advanced Economies (AE)) to identify developed countries (shown in Appendix A).

Sample Selection Bias

Because my sample is restricted and nonrandom, a key concern is that the sample has the potential for selection bias in terms of the relationships between independent and dependent variables in the present study. Heckman's sample selection correction model is adopted to address this issue. I investigate this potential bias and conclude that sample selection bias is not present in my sample. I empirically test for sample selection bias following Wooldridge's (1995, 2002) modified Heckman test (i.e., two-stage approach) for panel datasets. The identifying variable involved in the test is the industry dummy for natural resources, because it affects the probability of government control through state ownership but does not directly influence international diversification or firm performance. For the two measures of international diversification, the non-significant inverse-mills ratio (Lambda) coefficients (for the three-year sample, the breadth -1.01 $p < 0.13$; the depth 0.75, $p < 0.29$; for the seven-year sample, the breadth -2.35, $p < 0.24$; the depth 0.14, $p < 0.77$) suggest that selection bias due to nonrandom selection of state involvement in SMNEs is not a concern for my sample. For performance measures, I do not obtain censored observations to conduct the test, thus suggesting my sample selection is not biased on firm performance. This finding is consistent with the literature, which suggests that governments may interfere with SMNEs' operation and strategic decision for state objectives rather than for profits (e.g., Rao & Tagat, 1986; Lamont, 1979; Goldeng et al., 2008).

Measures

Dependent Variable

Firm Performance

My theoretical arguments suggest that I need to measure the extent to which state multinationals can obtain returns from their assets while pursuing international diversification. Based on previous studies on international diversification and firm performance, I use return on assets (ROA) (e.g., Hitt et al., 1997) and return on sales (ROS) (e.g., Cuervo-Cazurra & Dau, 2009; Geringer et al., 2000) as my accounting-based measures of firm performance and Tobin's q (Bertrand & Schoar, 2003; Hillman, Shropshire, & Cannella, 2007) as a market-based measure of firm performance for those listed SMNEs. Tobin's q is a ratio comparing the market value of a firm's assets with the replacement cost and reflects the perceptions of the market on the firm's current and potential performance (Bertrand & Schoar, 2003; Hillman, Shropshire, & Cannella, 2007).

Independent Variables

State Ownership

I measure state ownership as the extent to which the home-country government is represented in the ownership of the firm by the percentage of state shares in the total shares of SMNEs (Vaaler & Schrage, 2009).

Institutional Ownership

Institutional ownership is the moderator. I measure institutional ownership as the extent to which institutional investors are represented in the ownership of the firm as the

percentage of institution-owned shares in the total shares of SMNEs (Gedajlovic & Shapiro, 1998; Hoskisson, Hitt, Johnson, & Grossman, 2002; Tihanyi et al., 2003). Following Grinstein and Michaely's (2005) definition of institutional investors, I calculate the percentage of institutional ownership annually for my samples in the ORBIS database.

International Diversification

Early studies mainly investigate the depth, or scale of international diversification (Contractor et al., 2003; Hitt et al., 1997; Tallman & Li, 1996). Other scholars examine the breadth, or scope, of international expansion (Barkema & Vermeulen, 1998; Kogut & Singh, 1988; Reuer & Leiblein, 2000). In this study, I measure both dimensions of international diversification.

Use of multiple measures on international diversification is recommended (Hitt et al., 2006b; Sullivan, 1994). Following prior research, I measure the depth of international diversification (Depth) by combining three widely used measures: (1) the ratio of sales in foreign markets to the total sales (foreign sales ratio: FSTS); (2) the ratio of assets in foreign markets to the total assets (foreign assets ratio: FATA); (3) the ratio of foreign subsidiaries to the total subsidiaries (foreign subsidiary ratio: OSTS) (e.g. Hitt et al., 2006b; Sanders & Carpenter, 1998; Sullivan, 1994; Tihanyi et al. 2003). The results of a factor analysis suggest that these three individual variables load on the same factor. For the three-year sample, the factor loadings for the three measures are 0.79 (FSTS), 0.82 (FATA), and 0.63 (OSTS); the Cronbach alpha for the combined factor is 0.77. For the seven-year sample, the factor loadings for the three measures are 0.81

(FSTS), 0.84 (FATA), and 0.64 (OSTS); the Cronbach alpha for the combined factor is 0.73.

I measure the breadth of international diversification (Breadth) by combining two widely used measures: (1) the number of foreign countries (NFC); (2) the number of foreign subsidiaries (NFS) (Carpenter & Fredrickson, 2001; Lu & Beamish, 2004; Reuer & leiblein, 2000; Zahra et al., 2000b). Both measures are transformed by natural log to guarantee the assumption for a normal distribution as a continuous dependent variable when testing Hypotheses 1 and 2. After transformation, I check the distribution, which fits well with the assumption for continuous dependent variables. The results of a factor analysis suggest that the two individual variables load on the same factor. For the three-year sample, the factor loadings for the two measures are 0.88 (NFC), 0.94 (NFS); the alpha reliability for the factor is 0.75. For the seven-year sample, the factor loadings for the two measures are 0.83 (NFC), 0.92 (NFS); the alpha reliability for the factor is 0.76. The data on international diversification are gathered from the ORBIS database.

Control Variables

Because the study is a multi-country, multi-industry investigation on proposed relationships, I include control variables at the firm level, industry level, and country level to rule out alternative explanations for my hypotheses.

Firm-level Controls

The data on firm-level controls are gathered from the ORBIS database. I include several firm-level control variables. First, I controll for organizational slack due to its influence on the potential for international diversification (Tan & Peng, 2003). I focus on

a firm's unabsorbed slack and measure organizational slack by the *Current Ratio* (CR) (Chen, Su & Tsai, 2007). Second, firm size can influence international activity (Dunning & Lundan, 2008; Vernon, 1977). Since larger firms may have more resources in order to succeed in foreign operations. Accordingly, I measure *Firm size* (size) as the total employees of a firm, and use its logarithmic transformation to account for its skewed distribution (Goerzen & Beamish, 2003).

Third, I control for capital structure by leverage. I measure *Leverage* (leverage) as debt divided by total sales. Since previous studies suggest that firms may expand internationally to mitigate their problems in domestic markets (Doukas & Travlos, 1988), I include it as a control variable (Tihanyi et al., 2003). Fourth, *Firm age* (age) is the number of years since the year of a firm's founding. Firm age is transformed into its natural logarithm, following prior research (e.g., Ingram & Baum, 1997) to account for the possibility that the marginal value of each incremental unit of experience declines as overall experience increases.

To test Hypotheses 1b and 2b, I develop a dummy variable *Developed* to identify the group of firms and then generate the interaction terms. Developed is coded 1 if the firm is located in a developed country, 0 if others. If the results are significant, I will divide my full sample into two subsamples and further conduct analysis on two subgroups (SMNEs in developed countries and SMNEs in developing and emerging countries).

Industry-level Controls

In addition, industries dummies are included to control industry effects for

SMNEs. The coding is 1 in national resources; 2 in manufacturing; 3 in services; 4 in high technology; and 0 in others. Therefore, I have four industry dummies to control for industry effects.

Country-level Controls

The data on country-level controls are gathered from the Economist Intelligence Unit (EIU) database. At the country level, I control for country size, the development level of a country's economy, and outward foreign direct investment (outward FDI) intensity. I use the average value within the time periods (i.e., the three-year sample and the seven-year sample) for the three variables in my analytical models (hierarchical linear modeling) (Zickar & Slaughter, 1999).

First, I use GDP to control for country size, transformed into its natural logarithm (Vaaler & Schrage, 2009). Larger countries may have a larger domestic market size for firms to explore opportunities for higher profits and thus, outward FDI activities may not as many as those in smaller countries.

Second, I use GDP per capita (GDP/capita) control for the development of a country's economy (Cuervo-Cazurra & Dau, 2009) and also transform it into its natural logarithm. Economic conditions of countries influence firms' international strategies, such as the modes and timing of entry and location choices (Barkema & Drogendijk, 2007; Wooster, 2006). SMNEs that are located in wealthier countries may be more willing to enter into international markets to exploit their competitive advantages for continuous growth in profitability.

Finally, I control for OFDI/GDP, which is measured by FDI outflows as a

percentage of GDP. “Higher FDI intensity may reflect better institutions and a healthier economy” (Wooster, 2006: 184). Firms in wealthier but smaller countries are more willing or pushed to invest in international markets than those in large but developing or emerging countries or those in large and wealthier countries. These investment activities by SMNEs in foreign countries lead to the outflow of foreign direct investment. For instance, OFDI/GDP in European countries is much higher than that in North America and most of developing and emerging markets (EIU, 2010).

Statistical Models

Hierarchical Linear Modeling (HLM) models are used to test on the cross-section time-series panel data set with multiple (3) levels (t repeated measures, firm-level (and industry-level) and country-level). For the mediation effect, I adopt Baron and Kenny (1986)’s technique, complemented by the Sobel test. All statistical analyses are conducted using STATA/SE, version 11.0.

Panel Data Analysis

Hierarchical Linear Modeling

In this study, both dependent and independent variables are at the firm level in multiple years. For control variables, I have firm-level, industry-level, and country-level variables. Thus, three-level Hierarchical Linear Modeling (HLM) models are appropriate to test hypotheses; i.e., t-th repeated measured nested within i-th firms, and i-th firms nested within j-th countries. I have industry dummies to control for industry effects. However, because I already have three levels of variables, and statistical power is a

problem to implement HLM models if the number of clusters (here the number of industries) is lower than 15 (Raudenbush & Bryk, 2002), four industry dummies are included in the second (firm) level.

The HLM technique has its advantages to be implemented in this study. First, the variance of dependent variables can be partitioned between different levels in multilevel analysis (Hitt, Beamish, Jackson, & Mathieu, 2007; Poston, 2002; Raudenbush & Bryk, 2002). Moreover, in the HLM context, potential autocorrelation and heteroskedasticity is not a problem as it is in the context of OLS regression, since variability in variances can be built into HLM models (Hitt, Ahlstrom, Dacin, Levitas, Svobodina, 2004; O'Connell & MaCoach, 2008). Furthermore, the HLM technique has the advantage for longitudinal studies because it is flexible enough to handle irregularities in data collection (Helson, Jones & Kwan, 2002; Osgood & Smith, 1995). Because of HLM's flexibility, I can incorporate firms that have data in different years. HLM equations per hypothesis were presented in Chapter V. Level 1 included time varying variables within firms, Level 2 included industry dummies for firms, and Level 3 included country-level control variables.

Statistical Power and Sample Size in HLM

Power in multilevel models is determined by the number of higher level dyads, not the number of units within the dyads (Snijders & Bosker, 1993). In other words, a large number of higher level dyads generate a high level of statistical power for testing parameters in HLM models. To increase the number of higher level dyads is the best way to increase the power (O'Connell & McCoach, 2008). Raudenbush & Bryk (2002)

suggest a size of larger than 15 in higher level dyads. In two sets of tests, I have three years as three units or seven years as seven units in Level 1. In Level 2, in the three-year sample, I have 225 firms, while in the seven-year sample, I have 196 firms as clusters. In Level 3, in both samples, I have 40 countries as clusters. Therefore, data in my sample yield a high level of statistical power in HLM models. These 40 countries can be found in Appendix A.

Missing Data

Generally, missing data imply potential problems with most methods of analysis. There are three types of missing data: (1) missing completely at random (MCAR); (2) missing at random (MAR); (3) nonignorable nonresponse (Little & Rubin, 2002). The HLM models can easily address data that are MAR (Schonfeld & Rindskopf, 2007).

During the data collection, I already take efforts to reduce the involvement of missing data. However, because foreign assets are not always reported and then included in the database, the variable FATA (foreign assets ratio) has a large portion of missing data (for the three-year sample, 53%; for the seven-year sample, 54%). Given the large problems with missing data in FATA, it is necessary to deal with the issue (Wang & Robins, 1998). Multiple imputation is a recommended approach to deal with missing data (Honaker & King, 2010). I adopt STATA's MI, a statistical technique based on simulation, to handle missing data. M=20 is selected to conduct the multiple imputation. The second step is the completed data analysis, followed by the pooling step. Thus, a single result is produced through the combination of the results of M completed-data analyses (Little & Rubin, 2002). Option "cmdok" allows estimation when estimation

command is not one of the typical commands (e.g., xtmixed). In the robustness tests, considering the advantage of the HLM technique to deal with missing data, first, I conduct tests without imputed FATA data to check the consistency and robustness of my findings. Second, I choose $M=100$ to check the consistency and robustness of my findings related to Depth.

Endogeneity

The endogeneity problem may happen when changes in the outcome variable cause changes in the independent variables. If the relationship between the dependent variable and the independent variable is not exogenous, estimated coefficients will be biased and inconsistent (Baum, Schaffer, & Stillman, 2003). In this study, theoretically, I deny that the level of international diversification will influence state ownership. I also empirically test the potential of such problem. The instrumental variable I choose is the industry dummy for natural resources, which is related to government involvement, but not related to international diversification and firm performance (Hamilton & Nickerson, 2003). I conduct "Durbin-Wu-Hausman" (DWH) test, the results of which suggest that endogeneity is not a potential problem for my study. For the three-year sample, the chi-square is 0.94 ($p<0.33$) for Depth and 0.28 ($p<0.59$) for Breadth. For the seven-year sample, the chi-square is 1.23 ($p<0.26$) for Depth and 0.64 ($p<0.42$) for Breadth. Therefore, the empirical results of the endogeneity test are consistent with my theoretical arguments and I am able to conduct further data analysis.

Mediation Effect Analysis

To test the mediation effect of international diversification on the relationship

between state ownership and an SMNE's firm performance (Hypothesis 5), I adopt the traditional Baron & Kenny (1986)'s technique. "Three regression equations provide the tests of the linkages of the mediation model" (Baron and Kenny, 1986: 1177). First, the independent variables must significantly influence the dependent variables. Second, the independent variables must significantly influence the mediators. Third, the mediators must significantly affect the dependent variables after the influence of the independent variables are controlled for. If these relationships are found to be significant, it is included that a mediation effect exists. Therefore, I checked whether my results satisfy the three steps to determine a mediational relationship (Baron & Kenny, 1986).

I further adopt Sobel test (Sobel, 1982) to investigate on the above results to decide what kind of the mediation effect, none, partial or full they belong to (Jose, 2008). I.E. there is no significant indirect effect if the Sobel test z-value is not significant (<1.96); the mediational relationship is partial is the Sobel test z-value is significant (>1.96) and the effect ratio is lower than .8; and the mediational relationship is full is the Sobel test z-value is significant (>1.96) and the effect ratio is over .8 (Jose, 2008). By doing so, I determine the type of the mediational effect.

Summary

In sum, this chapter describes the methods that were used to select the sample firms, the measures for important variables, and the statistical models. Results and findings are provided in Chapter V. Chapter VI discusses the reported results before the concluding chapter.

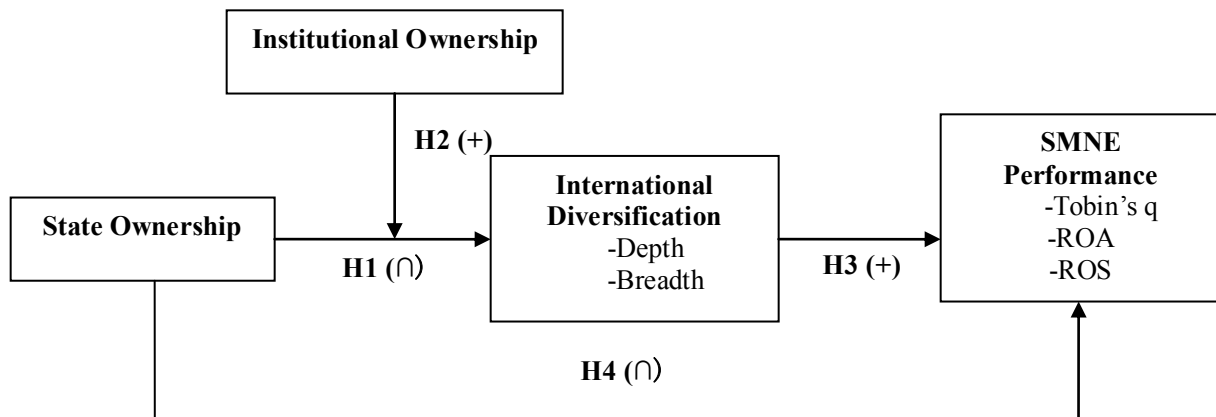
CHAPTER V

RESULTS

The purpose of this chapter is to report the results of the hypotheses developed in Chapter III. The full model of my hypotheses is presented in Figure 5.1. For the three-year sample, I first present the descriptive and correlation statistics for the sample. Second, the results of HLM null models are reported. Third, I report the results of hypotheses. For the seven-year sample, I repeat the above three steps, but mainly present results without repeating detailed explanation in techniques. Next, I compare the two sets of tests to check the consistency of my findings. I conduct the robustness check by using different techniques before the summary.

Figure 5.1

Empirical Model of State Ownership, International Diversification and SMNE Performance



Three-year Sample Tests

Descriptive Statistics

Table 5.1 presents summary statistics and the correlation relationships for Level-1 variables. Table 5.2 presents summary statistics and the correlation relationships for Level-3 variables. I include dependent variables in both Table 5.1 and Table 5.2. Dependent variables include three measures of performance (ROA, ROS, and Tobin's q) for Hypotheses 3, 4 and 5 and two measures of international diversification (Depth and Breadth) for Hypotheses 1a, 1b, 2a, 2b.

Level-1 Descriptive Statistics

Level-1 variables include all firm-level variables, including dependent variables, independent variables, as well as four control variables.

As shown in Table 5.1, all four control variables are significantly related to the dependent and independent variables but to different extents, suggesting that these variables need to be controlled in analytic models.

First, Tobin's q is significantly related to both dimensions of international diversification and both state ownership and institutional ownership. ROS is different from Tobin's q, since it is not significantly related to any dimension of international diversification, but only significantly related to ownership structure. However, ROA is not significantly related to international diversification and ownership structure at all.

Second, both Breadth and Depth are significantly related to state ownership and institutional ownership. Further, Breadth is significantly related to Depth. Third, state ownership is negatively but significantly related to institutional ownership.

Table 5.1
Descriptive Statistics and Correlations for Level 1 Variables (three-year sample)

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10
1. Tobin's q	1.91	3.27										
2. ROS	0.11	0.25	0.05									
3.ROA	0.07	0.09	0.28*	0.47*								
4.Depth	1.12	0.76	0.11*	-0.02	-0.01							
5. Breadth	1.63	1.04	0.09*	0.02	0.03	0.45*						
6. State Ownership (SO)	0.29	0.22	0.12*	0.08*	-0.01	-0.11*	-0.09*					
7. Institutional Ownership (IO)	0.23	0.18	0.11*	-0.10*	0.01	0.10*	0.20*	-0.42*				
8. Leverage	0.56	0.18	-0.06	-0.16*	-0.24*	-0.09*	0.13*	-0.04	0.10*			
9. CR	1.67	1.52	-0.07	0.02	0.04	-0.07	-0.07	-0.13*	-0.04	-0.46*		
10. Age	32	32.73	0.19*	0.01	0.06	-0.02	0.18*	-0.04	0.11*	0.07	-0.06	
11. Size	8.58	1.82	0.41*	0.07	0.09*	0.09*	0.28*	0.25*	-0.04	0.21*	-0.25*	0.15*

Note:

1. All values that are greater than 0.11 or less than -0.11 are significant at 0.05.
2. ⁺ p<0.10; * p<0.05; ** p<0.01; *** p<0.001.
3. Factor loadings of Depth: FSTS 0.81; FATA 0.83; OSTs 0.64. Cronbach alpha: 0.77.
4. Factor loadings of Breadth: NFC 0.88; NFS 0.94. Cronbach alpha: 0.75.
5. Both Breadth and Size are transformed using logs.
6. N=675.

Table 5.2
Descriptive Statistics and Correlations for Level 3 Variables (three-year sample)

Variable	Mean	s.d.	1	2	3	4	5	6	7
1. Tobin's q	1.91	3.27							
2. ROS	0.11	0.25	0.05						
3.ROA	0.07	0.09	0.28*	0.47*					
4.Depth	1.12	0.76	0.11*	-0.02	-0.01				
5. Breath	1.63	1.04	0.09*	0.02	0.03	0.45*			
6. GDP	6.39	1.36	-0.12*	-0.10*	-0.29*	-0.06	-0.13*		
7. GDP/capita	9.67	0.91	0.08*	-0.05	-0.08*	0.05	0.27*	-0.37*	
8. OFDI/GDP	29.01	29.72	0.05	-0.05	-0.02	0.24*	0.19*	-0.44*	0.51*

Note:

1. All values that are greater than 0.11 or less than -0.11 are significant at 0.05.
2. ⁺ p<0.10; * p<0.05; ** p<0.01; *** p<0.001.
3. Both GDP and GDP/capita are transformed using logarithm.

In sum, ownership structure has statistically significant correlations with international diversification. Meanwhile, performance is significantly related to both international diversification and ownership structure.

Level-3 Descriptive Statistics

Level-3 variables include three country-level control variables. As mentioned above, I also included dependent variables in Table 5.2. OFDI/GDP are not significantly related to any measure of performance, but are significantly related to my two measures of international diversification. GDP is significantly related to all three measures of performance, but only to Depth. GDP /capita is significantly related to Tobin's q and ROA of performance, and only to Depth.

In sum, these results suggest that these country-level variables need to be controlled in analytic models.

Centering Variables

I follow Irwin and McClelland (2001) by “mean-centering all right-hand side variables at zero, with the exception of the dummy variables” (Miller & Eden, 2006: 348) due to the involvement of the higher-order term and the interaction in this study. The inclusion of higher order terms in analytical models can result in non-essential multicollinearity problems (Aiken & West, 1991). Such problems are caused by including multiple derivatives of a single independent variable in one model. Centering variables can reduce non-essential multicollinearity problems by changing the scaling of those variables involved.

As a robustness check, I conduct a pooled estimation of the above models and calculated the variance inflation factors (VIF). The maximum VIF is 2.34 while the mean VIF is 1.76. The results show that VIF scores for each equation is far below the cutoff of 10, indicating no major multicollinearity problems.

HLM Null Models

In this study, as explained in Chapter IV, I use three-level HLM models to test my hypotheses. Country-level control variables are in Level-3, industry dummies are in Level-2, while firm-level variables are in Level-1. For my hypotheses to be supported, there must be significant between Level-2 and between Level-3 variances in the outcome variables. Therefore, I estimate the null models in which no predictors are specified for any of three levels. The null model is in Table 5.3.

Table 5.3
Null Model

Level 1	
	$Y_{tij} = \pi_{0ij} + e_{tij}$
Level 2	
	$\pi_{0ij} = \beta_{00j} + r_{0ij}$
Level 3	
	$\beta_{00j} = \gamma_{000} + U_{00j}$
Combined	
	$Y_{tij} = \gamma_{000} + e_{tij} + r_{0ij} + U_{00j}$

Note: Y_{tij} : performance or international diversification

I estimate the null model for each of two dependent variables (three measures of performance and two dimensions of international diversification). Results of these null models are in Table 5.4. I examine the significance of between Level-2 variance and between Level-3 variance, and their intra class correlation (ICC), which indicates the proportion of variance in the outcome variables that is explained by between-subjects. As indicated in Table 5.4, when the outcome is Depth, both between Level-2 dyads (0.77, $p < 0.001$; ICC=0.54) and between Level-3 dyads (0.44, $p < 0.001$; IC=0.18) variances are statistically significant. When the outcome is Breadth, both between Level-2 dyads (0.66, $p < 0.001$; ICC=0.73) and between Level-3 dyads (0.32, $p < 0.001$; ICC=0.17) variances are statistically significant. Thus, the results suggest that important level-2 and Level-3 predictors are needed to explain Depth and Breadth.

For the three measures of performance, when outcomes are ROA, both between Level-2 dyads (0.06, $p < 0.001$; ICC=0.53) and between Level-3 dyads (0.04, $p < 0.001$; IC=0.24) variances are significant. When outcomes are ROS, both between Level-2 dyads (0.18, $p < 0.001$; ICC=0.51) and between Level-3 dyads (0.05, $p < 0.05$; IC=0.04)

variances are significant. However, when outcomes are Tobin's q, only between Level-2 dyads (3.05, $p < 0.001$; ICC=0.88) variance is significant. These results suggest that important level-2 and Level-3 predictors are needed to explain ROA and ROS, while important level-2 predictors are needed to explain Tobin's q. Thus, I proceed with hypotheses testing by using STATA multilevel modeling.

Table 5.4
Results of Null Models

	Breadth of ID	Depth of ID	ROA	ROS	Tobin's q
Constant	1.63***	1.11***	0.07***	0.11***	1.91***
sd(country)	0.44***	0.32**	0.04***	0.05*	0.46
sd(firm)	0.77***	0.66***	0.06***	0.18***	3.05***
sd(residual)	0.55***	0.24***	0.04***	0.17***	1.10**
LR	284.28***	249.25***	347.45***	167.89***	753.31***

Note: ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

ICCcountry: $\rho_{\text{country}} = \tau_u / (\tau_r + \tau_u + \sigma^2)$; ICCfirm: $\rho_{\text{firm}} = \tau_r / (\tau_r + \tau_u + \sigma^2)$ (Hox, 2002)

Tests of Hypotheses

As discussed in Chapter IV, all hypotheses are tested in hierarchical linear modeling (HLM) because independent variables and control variables are in different levels. The results of null models testing also suggest that I proceed with HLM analysis, although for Tobin's q, a two-level model should be adopted rather than a three-level model for other dependent variables. STATA's XTMIXED is the appropriated procedure to test the hypotheses.

Control and first-order variables are entered the first, second order variables the second, followed by third order variables.

Control Variables

Table 5.5 presents the HLM model including control variables and first-order

terms. As shown in Table 5.5, I include all three-level control variables and two first-level first order terms (i.e. state ownership and institutional ownership). I fix the coefficient of each Level-1 firm variable in Level 2 ($\pi_{0ij}, \pi_{1ij}, \pi_{2ij}, \pi_{3ij}, \pi_{4ij}, \pi_{5ij}, \pi_{6ij}$), and the coefficient of each Level-2 variable in Level 3 ($\beta_{1ij}, \beta_{2ij}, \beta_{3ij}, \beta_{4ij}, \beta_{5ij}, \beta_{6ij}, \beta_{01j}, \beta_{021j}, \beta_{31j}, \beta_{41j}$) for the following two reasons. First, cross-level interaction effects are not the main interest in this study. Thum & Bryk (1997) suggested that “either all coefficients should be fixed or the random slopes should be objects of study” (p105). Unless the estimation of the variability in the effect of differences across firms or across countries is the primary research question, no random effects should be specified (O’Connell & McCoach, 2008). Second, adding Level-2 or Level-3 variables to predict lower level variables will lead to many cross-level interaction terms in the combined model. Thus, potential multicollinearity problems may be caused in analytical models.

Therefore, I set the Level-2 random error term $r_{1ij}, r_{2ij}, r_{3ij}, r_{4ij}, r_{5ij}, r_{6ij}$, and the Level-3 random error term $U_{10j}, U_{20j}, U_{30j}, U_{40j}, U_{50j}, U_{60j}, U_{01j}, U_{02j}, U_{03j}, U_{04j}$ to be zero. In this case, the HLM model is called a random-intercept model indicating that only Level-2 and Level-3 intercepts are randomly varying at lower levels; yet lower level coefficients are not allowed to randomly vary at higher levels.

First two columns present the results of control and first-order variables while dependent variables are Depth and Breadth. Size and GDP/capita are significant for Breadth, which suggests the importance of controlling for both firm- and country- level variables in analytical models.

First two columns present the results of control and first-order variables while

Table 5.5
Control Variable and First Order Term Model

Level 1	$Y_{tij} = \pi_{0ij} + \pi_{1ij} CR + \pi_{2ij} size + \pi_{3ij} leverage + \pi_{4ij} age + \pi_{5ij} SO + \pi_{6ij} IO + e_{tij}$	
Level 2	$\pi_{0ij} = \beta_{00j} + \beta_{01j} inddum1 + \beta_{02j} inddum2 + \beta_{03j} inddum3 + \beta_{04j} inddum4 + r_{0ij}$ $\pi_{1ij} = \beta_{10j}$ $\pi_{2ij} = \beta_{20j}$ $\pi_{3ij} = \beta_{30j}$ $\pi_{4ij} = \beta_{40j}$ $\pi_{5ij} = \beta_{50j}$ $\pi_{6ij} = \beta_{60j}$	
Level 3	$\beta_{00j} = \gamma_{000} + \gamma_{001} GDP + \gamma_{002} GDP/capita + \gamma_{003} OFDI/GDP + U_{00j}$ $\beta_{10j} = \gamma_{100}$ $\beta_{20j} = \gamma_{200}$ $\beta_{30j} = \gamma_{300}$ $\beta_{40j} = \gamma_{400}$ $\beta_{50j} = \gamma_{500}$ $\beta_{60j} = \gamma_{600}$	
Combined	$Y_{tij} = \gamma_{000} + \gamma_{001} GDP + \gamma_{002} GDP/capita + \gamma_{003} OFDI/GDP + \gamma_{100} CR + \gamma_{200} size + \gamma_{300} leverage + \gamma_{400} age + \gamma_{500} SO + \gamma_{600} IO + \gamma_{010} inddum1 + \gamma_{020} inddum2 + \gamma_{030} inddum3 + \gamma_{040} inddum4 + e_{tij} + r_{0ij} + U_{00j}$	

Note: Y_{tij} : dependent variables (Breadth and Depth); Performance measures

dependent variables are the three measures of firm performance. Leverage, size and GDP are significant for ROA and ROS, which suggests the importance of controlling for both firm- and country- level variables in analytical models.

Hypothesis 1a

Hypothesis 1a predicts that there is a non-linear relationship between state ownership and international diversification. As shown in Table 5.6, state squared (a second-order term) is added in the HLM analytical model. As discussed in control variables section, I fix the coefficients of each level-1 and level-2 variables. I apply the HLM models twice for both Depth and Breadth.

Table 5.6
Hypothesis 1a Model

Level 1	
	$Y_{tij} = \pi_{0ij} + \pi_{1ij} CR + \pi_{2ij} size + \pi_{3ij} leverage + \pi_{4ij} age + \pi_{5ij} SO + \pi_{6ij} IO + \pi_{7ij} SO^2 + e_{tij}$
Level 2	
	$\pi_{0ij} = \beta_{00j} + \beta_{01j} inddum1 + \beta_{02j} inddum2 + \beta_{03j} inddum3 + \beta_{04j} inddum4 + r_{0ij}$
	$\pi_{1ij} = \beta_{10j}$
	$\pi_{2ij} = \beta_{20j}$
	$\pi_{3ij} = \beta_{30j}$
	$\pi_{4ij} = \beta_{40j}$
	$\pi_{5ij} = \beta_{50j}$
	$\pi_{6ij} = \beta_{60j}$
	$\pi_{7ij} = \beta_{70j}$
Level 3	
	$\beta_{00j} = \gamma_{000} + \gamma_{001} GDP + \gamma_{002} GDP/capita + \gamma_{003} OFDI/GDP + U_{00j}$
	$\beta_{10j} = \gamma_{100}$
	$\beta_{20j} = \gamma_{200}$
	$\beta_{30j} = \gamma_{300}$
	$\beta_{40j} = \gamma_{400}$
	$\beta_{50j} = \gamma_{500}$
	$\beta_{60j} = \gamma_{600}$
	$\beta_{70j} = \gamma_{700}$
Combined	
	$Y_{tij} = \gamma_{000} + \gamma_{001} GDP + \gamma_{002} GDP/capita + \gamma_{003} OFDI/GDP + \gamma_{100} CR + \gamma_{200} size + \gamma_{300} leverage + \gamma_{400} age + \gamma_{500} SO + \gamma_{600} IO + \gamma_{700} SO^2 + \gamma_{010} inddum1 + \gamma_{020} inddum2 + \gamma_{030} inddum3 + \gamma_{040} inddum4 + e_{tij} + r_{0ij} + U_{00j}$

Note: Y_{tij} : dependent variables: Breadth and Depth.

The non-linear relationship is marginally significant to Depth (-1.78, $p < 0.10$). The sign is negative, which suggests an inverted-U shaped relationship between state ownership and Depth. For Breadth, the relationship is stronger than that for Breadth (-4.13, $p < 0.001$) (the threshold is 26%). These results provide support for Hypothesis 1a.

Hypothesis 2a

Hypothesis 2a suggests that institutional ownership positively influences the relationship between state ownership and international expansion. Due to the

professional monitoring by institutional investors on corporate governance, the relationship between state ownership and international diversification will move upward and to the right, which suggests a positive impact on the state ownership-international diversification relationship.

Table 5.7
Hypothesis 2a Model

Level 1

$$Y_{tij} = \pi_{0ij} + \pi_{1ij}CR + \pi_{2ij}size + \pi_{3ij}leverage + \pi_{4ij}age + \pi_{5ij}SO + \pi_{6ij}IO + \pi_{7ij}SO^2 + \pi_{8ij}IO*SO + \pi_{9ij}IO*SO^2 + e_{tij}$$

Level 2

$$\begin{aligned}\pi_{0ij} &= \beta_{00j} + \beta_{01j}inddum1 + \beta_{02j}inddum2 + \beta_{03j}inddum3 + \beta_{04j}inddum4 + r_{0ij} \\ \pi_{1ij} &= \beta_{10j} \\ \pi_{2ij} &= \beta_{20j} \\ \pi_{3ij} &= \beta_{30j} \\ \pi_{4ij} &= \beta_{40j} \\ \pi_{5ij} &= \beta_{50j} \\ \pi_{6ij} &= \beta_{60j} \\ \pi_{7ij} &= \beta_{70j} \\ \pi_{8ij} &= \beta_{80j} \\ \pi_{9ij} &= \beta_{90j}\end{aligned}$$

Level 3

$$\begin{aligned}\beta_{00j} &= \gamma_{000} + \gamma_{001}GDP + \gamma_{002}GDP/capita + \gamma_{003}OFDI/GDP + U_{00j} \\ \beta_{10j} &= \gamma_{100} & \beta_{01j} &= \gamma_{010} \\ \beta_{20j} &= \gamma_{200} & \beta_{02j} &= \gamma_{020} \\ \beta_{30j} &= \gamma_{300} & \beta_{03j} &= \gamma_{030} \\ \beta_{40j} &= \gamma_{400} & \beta_{04j} &= \gamma_{040} \\ \beta_{50j} &= \gamma_{500} \\ \beta_{60j} &= \gamma_{600} \\ \beta_{70j} &= \gamma_{700} \\ \beta_{80j} &= \gamma_{800} \\ \beta_{90j} &= \gamma_{900}\end{aligned}$$

Combined

$$Y_{tij} = \gamma_{000} + \gamma_{001}GDP + \gamma_{002}GDP/capita + \gamma_{003}OFDI/GDP + \gamma_{100}CR + \gamma_{200}size + \gamma_{300}leverage + \gamma_{400}age + \gamma_{500}SO + \gamma_{600}IO + \gamma_{700}SO^2 + \gamma_{800}IO*SO + \gamma_{900}IO*SO^2 + \gamma_{010}inddum1 + \gamma_{020}inddum2 + \gamma_{030}inddum3 + \gamma_{040}inddum4 + e_{tij} + r_{0ij} + U_{00j}$$

Note: Y_{tij} : dependent variables: Breadth and Depth of international diversification.

As shown in Table 5.7, interaction terms (institution* state and institution*state²) is added in the analytical model.

To further understand this moderation effect, I draw a graph to show the influence of institutional ownership using constant and unstandardized regression coefficients for state and institutional ownership split at two standard deviations above and below the mean (Cohen, Cohen, West, & Aiken, 2003). As shown in Figure 5.2, the relationship between state ownership and the level of international diversification in SMNEs with a low level of institutional ownership (-1SD) is similar to the result of H1a (the threshold point of state ownership is 0.27). By contrast, with a high level of institutional ownership (+1SD), the proposed inverted U-shaped relationship between state ownership and the level of international diversification moves upward and to the right (the threshold point of state ownership is 0.37), which supports a positive moderator effect of institutional ownership.

Figure 5.2
The Moderator Effect of Institutional Ownership

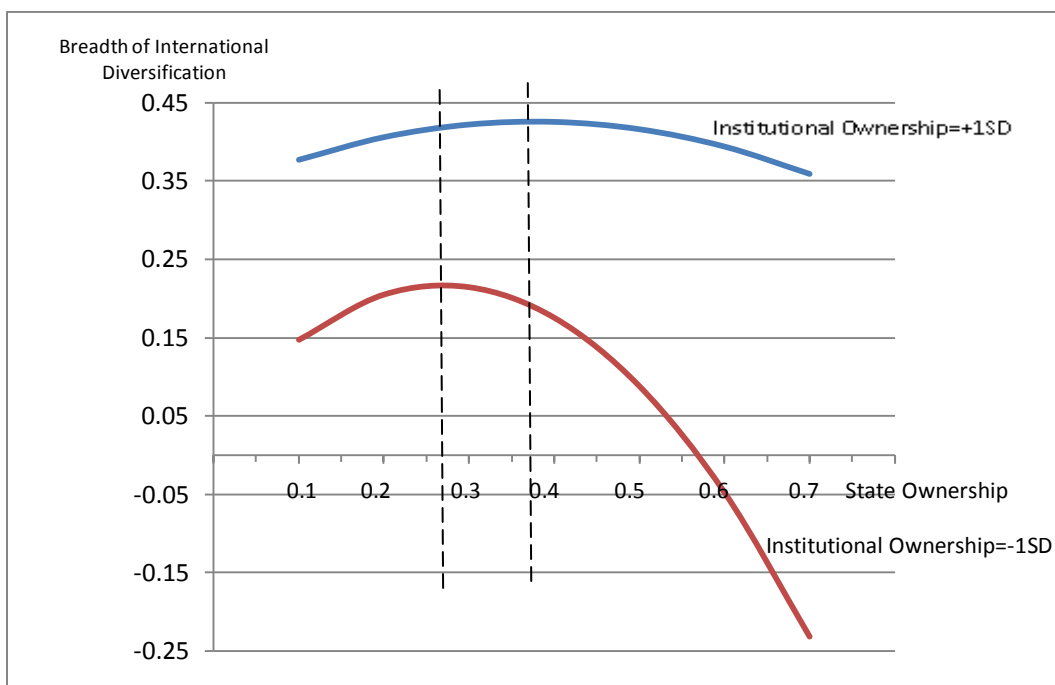


Table 5.8
Results for H1a and H2a

	Control Variables and First-Order		Hypothesis 1a		Hypothesis 2a	
	Depth	Breadth	Depth	Breadth	Depth	Breadth
Fixed effects:						
Constant	-0.52 (1.70)	-3.56*** (1.02)	-0.55 (1.18)	-4.10** (1.23)	-0.81 (0.51)	-3.52** (1.21)
CR	-0.06 (0.05)	0.03 (0.04)	-0.05 (0.05)	0.03 (0.04)	-0.05 (0.05)	0.03 (0.04)
Leverage	0.21 (0.31)	0.51 (0.30)	0.22 (0.31)	0.40 (0.30)	0.22* (0.11)	0.52 ⁺ (0.30)
Size	0.05 (0.04)	0.26*** (0.08)	0.06 (0.04)	0.27** (0.08)	0.02* (0.01)	0.26*** (0.08)
Age	-0.01 (0.02)	0.01 (0.01)	-0.01 (0.02)	0.02 (0.02)	-0.01 (0.01)	0.01 (0.01)
GDP	0.04 (0.07)	0.07 (0.08)	0.03 (0.08)	0.09 (0.08)	0.04 (0.03)	0.08 (0.08)
GDP/capita	0.04 (0.09)	0.42** (0.14)	0.05 (0.11)	0.42** (0.13)	0.05 (0.10)	0.42** (0.13)
OFDI/GDP	0.01 (0.03)	0.01 (0.01)	0.05 (0.04)	0.06 ⁺ (0.03)	0.07 ⁺ (0.04)	0.06 (0.03)
SO	-0.03 (0.03)	-0.78* (0.33)	1.24 (0.91)	2.30* (0.96)	-1.46 ⁺ (0.83)	1.42* (0.69)
IO	(0.16) (0.19)	0.85** (0.26)	0.24 (0.22)	0.81** (0.26)	0.58 (0.70)	0.82* (0.40)
SO ²			-1.78 ⁺ (1.07)	-4.13*** (1.20)	-0.15 (0.36)	-2.67*** (0.82)
IO*SO					-0.39 (1.02)	-2.31* (1.14)
IO*SO ²					2.21 (1.68)	4.98* (2.43)
Industry dummy included						
Random effects:						
Sd(country)	0.24	0.36**	0.24	0.36**	0.24	0.35**
Sd(firm)	0.68***	0.65***	0.67***	0.65***	0.69***	0.65***
Sd(residual)	0.24***	0.52***	0.24***	0.51***	0.24***	0.51***
Wald Chi-square	20.31 ⁺	105.98***	22.97 ⁺	119.38***	24.18	126.24***
LR	235.23***	201.57***	216.82***	205.10***	221.68***	209.73***

Note: ⁺ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

As discussed in control variables section, I fix the coefficients of each level-1 and level-2 variables. I apply the HLM models twice for both Depth and Breadth.

Table 5.8 presents the results. For Depth, the interaction term is positive but not statistically significant (2.21, n.s.), and the second-order term (state squared) is not statistically significant (-0.15, n.s.) as well. For Breadth, the interaction term is positive and statistically significant (4.98, $p < 0.05$), while the second-order term (state squared) is still statistically significant (-2.67, $p < 0.01$). These results suggest that Hypothesis 2a is supported and institutional investors do help to improve the quality of corporate governance of SMNEs as proposed.

Institutional Environment Tests

Considering the differences in their institutional environment, I propose Hypotheses 1b and 2b in Chapter III to test whether the influence of corporate governance differs for two sub sample groups (SMNEs in developed countries and SMNEs in developing and emerging countries).

Hypothesis 1b

Hypothesis 1b predicts that the relationship between state ownership and international diversification is stronger for SMNEs in developing and emerging economies than for those in developed economies. Since the dummy variable Developed positively influences the state ownership-international diversification relationship, I further conduct data analysis on two subsamples.

The model for H1a still applies for the test of H1b, but using two subsamples (SMNEs in developed countries and SMNEs in developing and emerging countries)

rather than the full sample. As discussed in control variables section, I fix the coefficients of each level-1 and level-2 variables. I apply the HLM models twice for the two dimensions of international diversification (Breadth and Depth).

Table 5.9 presents the results. For SMNEs in developed countries, no support is found for Depth (-0.93, n.s.) and Breadth (-1.15, n.s.). For SMNEs in developing and emerging countries, the inverted U-shaped relationship is statistically significant for Breadth (-3.62, $p < 0.001$) (the threshold point is 32%) while marginally and statistically significant for Depth (-2.90, $p < 0.10$). Thus, the overall coefficients imply a weaker state ownership-international diversification relationship for SMNEs from developed countries.

Next, following the technique suggested by Cohen et al. (2003) and used by Hitt et al. (2004), I examine differences between the two subsamples (SMNEs in developed countries and SMNEs in developing and emerging countries) on the state ownership—international diversification relationship. I compare the coefficients obtained in my HLM analyses by adjusting the standard errors of coefficients (Adj STE) using the following formula:

$$\text{Adj STE} = (\text{STD DV} / \text{STD IV}) \times \text{STE IV}$$

where STD refers to standard deviation, STE refers to standard error, and Breadth and Depth are the dependent variables. Z score is calculated to compare coefficients across the two subgroups using the following formula:

$$z = (B_{i \text{ Developed}} - B_{i \text{ Developing}}) / ((\text{ADJ STE}_{i \text{ Developed}})^2 - (\text{ADJ STE}_{i \text{ Developing}})^2)^{1/2}$$

Table 5.9
Results for Hypothesis 1b

	Developed				Developing			
	Control Variables and First-Order		Second Order		Control Variables and First-Order		Second Order	
	Depth	Breadth	Depth	Breadth	Depth	Breadth	Depth	Breadth
Fixed effects:								
Constant	-2.17 (3.47)	-0.19 (1.16)	-2.50 (3.84)	-0.12 (0.49)	2.78 (2.63)	-1.89** (0.54)	1.01 (2.56)	-2.64** (1.16)
CR	-0.06 (0.07)	-0.09 ⁺ (0.05)	-0.06 (0.07)	-0.09 ⁺ (0.05)	-.08 (0.07)	0.14** (0.05)	-0.07 (0.07)	0.12* (0.05)
Leverage	0.02 (0.32)	0.21 (0.38)	0.04 (0.15)	0.19 (0.38)	0.21 (0.43)	0.91* (0.46)	0.30 (0.45)	0.48 (0.43)
Size	0.11* (0.05)	0.29*** (0.09)	0.11* (0.05)	0.28** (0.10)	-0.05 (0.07)	0.24*** (0.06)	-0.02 (0.05)	0.24*** (0.07)
Age	-0.01 (0.02)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	0.01 (0.01)	-0.01 (0.01)	0.01 (0.01)
GDP	0.05 (0.13)	0.10 (0.13)	-0.04 (0.11)	0.11 (0.13)	0.10 (0.28)	0.17 (0.14)	0.20 (0.37)	0.35** (0.14)
GDP/capita	0.18 (0.43)	-0.36 (0.87)	0.21 (0.39)	-0.36 (0.88)	-0.31 (0.68)	0.57* (0.26)	-0.11 (0.68)	0.79** (0.25)
OFDI/GDP	0.02 (0.04)	0.06 (0.06)	0.03 (0.05)	0.07 (0.06)	0.10** (0.03)	0.08** (0.03)	0.10** (0.04)	0.11** (0.03)
SO	-0.16 (0.56)	-0.09 (0.24)	0.51 (1.17)	1.38 (1.50)	-0.39 (1.08)	-0.84 (1.02)	2.12 (1.37)	2.35 (1.82)
IO	0.57 ⁺ (0.30)	0.68* (0.34)	0.59* (0.30)	0.69* (0.34)	0.10 (0.32)	1.21** (0.40)	0.11 (0.33)	1.23** (0.40)
SO ²			-0.93 (1.41)	-1.15 (0.99)			-2.90 ⁺ (1.74)	-3.62** (1.41)
Industry dummy included								
Random effects:								
Sd(country)	0.38	0.36**	0.38	0.49**	0.06	0.03	0.07	0.05
Sd(firm)	0.69***	0.65***	0.70***	0.71***	0.65***	0.62***	0.63***	0.55***
Sd(residual)	0.21***	0.52***	0.21***	0.46***	0.26***	0.57***	0.26***	0.56***
Wald Chi-square	15.09	61.32***	12.48	64.37***	15.22*	47.86** *	18.70*	85.16** *
LR	123.24** *	112.64** *	118.63** *	138.32** *	101.96** *	62.81** *	88.20** *	51.37** *

Note: ⁺ p<0.10, * p < 0.05, ** p < 0.01, *** p < 0.001

where B refers to coefficients produced in the HLM analyses and z , the test statistic, is normally distributed.

The results presented show that the coefficients for Depth are negative and only marginally significant in the subsample of SMNEs in developing and emerging countries. Furthermore, the relevant z statistic is positive and statistically significant ($z=2.91$; $p<0.05$), suggesting that for SMNEs in developing and emerging countries, state ownership has a stronger impact on Depth for those in developed countries.

Moreover, the results show that the coefficients for Breadth are negative and only significant in the subsample of SMNEs in developing and emerging countries. Furthermore, the relevant z statistic is positive and statistically significant ($z=2.51$; $p<0.05$), suggesting that for SMNEs in developing and emerging countries, state ownership has a stronger impact on Breadth for those in developed countries.

These results suggest that Hypothesis 1b is supported.

Hypothesis 2b

Hypothesis 2b predicts that the moderating effect of institutional ownership is weaker for SMNEs in developing and emerging economies than for those in developed economies. In another word, the higher the level of home country institutional environment, the greater the moderation effect of institutional ownership. Since Developed positively influences the state ownership-ID relationship, I further conduct data analysis on two subsamples.

Table 5.10
Results for Hypothesis 2b

	Developed		Developing	
	Depth	Breadth	Depth	Breadth
Fixed effects:				
Constant	-1.34 (2.90)	0.28 (1.06)	0.92 (1.56)	-2.31** (1.14)
CR	-0.03 (0.06)	-0.08 (0.05)	-0.07 (0.07)	0.12* (0.05)
Leverage	0.24 (0.47)	0.22 (0.38)	0.30 (0.45)	0.44 (0.43)
Size	0.10 ⁺ (0.06)	0.29** (0.10)	-0.01 (0.05)	0.24*** (0.06)
Age	-0.01 (0.01)	-0.02 (0.02)	-0.01 (0.01)	0.02 ⁺ (0.01)
GDP	0.04 (0.09)	0.11 (0.14)	0.20 (0.39)	0.32* (0.14)
GDP/capita	0.11 (0.42)	-0.37 (0.62)	-0.12 (0.68)	0.73** (0.25)
OFDI/GDP	0.03 (0.06)	0.07 (0.06)	0.10** (0.04)	0.10** (0.04)
SO	0.53 (1.44)	0.83 (0.56)	-2.09 (1.43)	1.87 (1.48)
IO	1.22 (1.11)	1.73 ⁺ (1.02)	0.42 (0.97)	1.27 (1.40)
SO ²	-1.26 ⁺ (0.74)	-1.65* (0.82)	-3.47 (2.52)	-3.62 ⁺ (2.17)
IO*SO	-0.74 (1.26)	-0.42 (0.89)	1.99 (2.56)	0.11 (0.08)
IO*SO ²	8.39** (3.11)	8.16** (2.98)	-2.51 (3.48)	-2.33 (3.84)
Industry dummy included				
Random effects:				
Sd(country)	0.24	0.54**	0.07	0.03
Sd(firm)	0.67***	0.71***	0.63***	0.56***
Sd(residual)	0.24***	0.45***	0.26***	0.56***
Wald Chi-square	22.97 ⁺	67.85***	19.52 ⁺	85.75***
LR	216.82***	139.69***	84.48***	52.86***

Note: ⁺ p<0.10, * p < 0.05, ** p < 0.01, *** p < 0.001

The model for H2a still applies for the test of H2b, but using two subsamples (SMNEs in developed countries and SMNEs in developing and emerging countries) rather than the full sample. As discussed in control variables section, I fix the coefficients of each level-1 and level-2 variables. I apply the HLM models twice for the two dimensions of international diversification (Breadth and Depth).

Table 5.10 presents the results. Support is found for Depth (8.39, $p < 0.01$) and for the breadth (8.16, $p < 0.01$) for SMNEs from developed countries. No support is found for SMNEs from developing and emerging countries on either Depth (-2.51, n.s.) and Breadth (-2.33, n.s.) Thus, the overall coefficients imply that institutional ownership functions much better for SMNEs from developed countries than that for SMNEs from developing and emerging countries.

Table 5.11
Coefficients Comparison for H1b and H2b^a

	Developed		Developing & Emerging		
	Coefficients	S.E.	Coefficients	S.E.	Z
H1b					
Depth	-0.93	1.41	-2.90 ⁺	1.74	2.91*
Breadth	-1.15	0.99	-3.62***	1.41	2.51*
H2b					
Depth	8.39**	3.11	-2.51	3.48	1.99*
Breadth	8.16**	2.98	-2.33	3.84	1.91 ⁺

a. Two-tail tests

b. ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The results presented in Table 5.11 show that the coefficients for Depth are positive and significant in the subsample of SMNEs in developed countries. Furthermore, the relevant z statistic is positive and statistically significant ($z=1.99$; $p<0.05$), suggesting that for SMNEs in developed countries, institutional ownership has a stronger moderation effect on the state ownership -- Depth relationship than for those in developing and emerging countries.

Moreover, the results presented in Table 5.11 show that the coefficients for Breadth are positive and significant in the subsample of SMNEs in developed countries. Furthermore, the relevant z statistic is positive and marginally significant ($z=1.91$; $p<0.10$), suggesting that for SMNEs in developed countries, institutional ownership has a stronger moderation effect on the state ownership -- Breadth relationship than for those in developing and emerging countries.

These results suggest that Hypothesis 2b receives support.

Hypothesis 3

Hypothesis 3 predicts that international diversification positively affects firm performance.

As shown in Table 5.12, both Breadth and Depth are added in the analytical model. As discussed in control variables section, I fix the coefficients of each level-1 and level-2 variables. I apply the HLM models three times for the three measures of firm performance (Tobin's q, ROA and ROS).

Table 5.12
Hypothesis 3 Model

Level 1

$$Y_{tij} = \pi_{0ij} + \pi_{1ij}CR + \pi_{2ij}size + \pi_{3ij}leverage + \pi_{4ij}age + \pi_{5ij}SO + \pi_{6ij}IO + \pi_{7ij}Breadth + \pi_{8ij}Depth + e_{tij}$$

Level 2

$$\begin{aligned}\pi_{0ij} &= \beta_{00j} + \beta_{01j}inddum1 + \beta_{02j}inddum2 + \beta_{03j}inddum3 + \beta_{04j}inddum4 + r_{0ij} \\ \pi_{1ij} &= \beta_{10j} \\ \pi_{2ij} &= \beta_{20j} \\ \pi_{3ij} &= \beta_{30j} \\ \pi_{4ij} &= \beta_{40j} \\ \pi_{5ij} &= \beta_{50j} \\ \pi_{6ij} &= \beta_{60j} \\ \pi_{7ij} &= \beta_{70j} \\ \pi_{8ij} &= \beta_{80j}\end{aligned}$$

Level 3

$$\begin{aligned}\beta_{00j} &= \gamma_{000} + \gamma_{001}GDP + \gamma_{002}GDP/capita + \gamma_{003}OFDI/GDP + U_{00j} \\ \beta_{10j} &= \gamma_{100} & \beta_{01j} &= \gamma_{010} \\ \beta_{20j} &= \gamma_{200} & \beta_{02j} &= \gamma_{020} \\ \beta_{30j} &= \gamma_{300} & \beta_{03j} &= \gamma_{030} \\ \beta_{40j} &= \gamma_{400} & \beta_{04j} &= \gamma_{040} \\ \beta_{50j} &= \gamma_{500} \\ \beta_{60j} &= \gamma_{600} \\ \beta_{70j} &= \gamma_{700} \\ \beta_{80j} &= \gamma_{800}\end{aligned}$$

Combined

$$Y_{tij} = \gamma_{000} + \gamma_{001}GDP + \gamma_{002}GDP/capita + \gamma_{003}OFDI/GDP + \gamma_{100}CR + \gamma_{200}size + \gamma_{300}leverage + \gamma_{400}age + \gamma_{500}SO + \gamma_{600}IO + \gamma_{700}Breadth + \gamma_{800}Depth + \gamma_{010}inddum1 + \gamma_{020}inddum2 + \gamma_{030}inddum3 + \gamma_{040}inddum4 + e_{tij} + r_{0ij} + U_{00j}$$

Note: Y_{tij} : dependent variables—three measures of firm performance.

No support is found for Tobin's q. Only marginally and statistically significant support is found by Depth effect on ROA (0.02, $p < 0.10$) while both Depth (0.03, $p < 0.05$) and Breadth (0.02, $p < 0.05$) provide support for ROS. These results provide partial support for Hypothesis 3.

Hypothesis 4

Hypothesis 4 predicts that there is a non-linear relationship between state ownership and firm performance.

As shown in Table 5.13, state squared is added in the analytical model. As discussed in control variables section, I fix the coefficients of each level-1 and level-2 variables. I apply the HLM models three times for the three measures of firm performance (Tobin's q, ROA and ROS).

No support is found for Tobin's q. Only marginally significant support is found for ROA (-1.43, $p < 0.10$) and for ROS (-3.59, $p < 0.10$). These results suggest that Hypothesis 4 receives only partial and marginal support.

Table 5.13
Hypothesis 4 Model

Level 1

$$Y_{tij} = \pi_{0ij} + \pi_{1ij} CR + \pi_{2ij} size + \pi_{3ij} leverage + \pi_{4ij} age + \pi_{5ij} SO + \pi_{6ij} IO + \pi_{7ij} SO^2 + e_{tij}$$

Level 2

$$\pi_{0ij} = \beta_{00j} + \beta_{01j} inddum1 + \beta_{02j} inddum2 + \beta_{03j} inddum3 + \beta_{04j} inddum4 + r_{0ij}$$

$$\pi_{1ij} = \beta_{10j}$$

$$\pi_{2ij} = \beta_{20j}$$

$$\pi_{3ij} = \beta_{30j}$$

$$\pi_{4ij} = \beta_{40j}$$

$$\pi_{5ij} = \beta_{50j}$$

$$\pi_{6ij} = \beta_{60j}$$

$$\pi_{7ij} = \beta_{70j}$$

Level 3

$$\beta_{00j} = \gamma_{000} + \gamma_{001} GDP + \gamma_{002} GDP/capita + \gamma_{003} OFDI/GDP + U_{00j}$$

$$\beta_{10j} = \gamma_{100}$$

$$\beta_{01j} = \gamma_{010}$$

$$\beta_{20j} = \gamma_{200}$$

$$\beta_{02j} = \gamma_{020}$$

$$\beta_{30j} = \gamma_{300}$$

$$\beta_{03j} = \gamma_{030}$$

$$\beta_{40j} = \gamma_{400}$$

$$\beta_{04j} = \gamma_{040}$$

$$\beta_{50j} = \gamma_{500}$$

$$\beta_{60j} = \gamma_{600}$$

$$\beta_{70j} = \gamma_{700}$$

Combined

$$Y_{tij} = \gamma_{000} + \gamma_{001} GDP + \gamma_{002} GDP/capita + \gamma_{003} OFDI/GDP + \gamma_{100} CR + \gamma_{200} size + \gamma_{300} leverage + \gamma_{400} age + \gamma_{500} SO + \gamma_{600} IO + \gamma_{700} SO^2 + \gamma_{010} inddum1 + \gamma_{020} inddum2 + \gamma_{030} inddum3 + \gamma_{040} inddum4 + e_{tij} + r_{0ij} + U_{00j}$$

Note: Y_{tij} : dependent variables—three measures of firm performance.

Hypothesis 5

Hypothesis 5 proposes a mediation effect of international diversification on the relationship between state ownership and an SMNE's firm performance. "Three regression equations provide the tests of the linkages of the mediation model" (Baron and Kenny, 1986: 1177). First, the independent variables must significantly influence the dependent variables. Second, the independent variables must significantly influence the mediators. Third, the mediators must significantly affect the dependent variables after the influence of the independent variables are controlled for. If these relationships are found to be significant, it is included that a mediation effect exists (Baron and Kenny, 1986).

As shown in Table 5.14, state squared, both the depth and the breadth of international diversification are added in the analytical model. As discussed in control variables section, I fix the coefficients of each level-1 and level-2 variables. I apply the HLM models three times for the three measures of firm performance (Tobin's q, ROA and ROS).

None of the three steps to identify the existence of mediation effect is significant, because no support for the relationship between international diversification and Tobin's q, as well as the relationship between state ownership and firm performance. Thus, the meditational effect of international diversification does not exist for Tobin's q.

Table 5.14
Hypothesis 5 Model

Level 1	
$Y_{tij} = \pi_{0ij} + \pi_{1ij} CR + \pi_{2ij} size + \pi_{3ij} leverage + \pi_{4ij} age + \pi_{5ij} SO + \pi_{6ij} IO + \pi_{7ij} SO^2 + \pi_{8ij} Breadth + \pi_{9ij} Depth + e_{tij}$	
Level 2	
$\pi_{0ij} = \beta_{00j} + \beta_{01j} inddum1 + \beta_{02j} inddum2 + \beta_{03j} inddum3 + \beta_{04j} inddum4 + r_{0ij}$	
$\pi_{1ij} = \beta_{10j}$	
$\pi_{2ij} = \beta_{20j}$	
$\pi_{3ij} = \beta_{30j}$	
$\pi_{4ij} = \beta_{40j}$	
$\pi_{5ij} = \beta_{50j}$	
$\pi_{6ij} = \beta_{60j}$	
$\pi_{7ij} = \beta_{70j}$	
$\pi_{8ij} = \beta_{80j}$	
$\pi_{9ij} = \beta_{90j}$	
Level 3	
$\beta_{00j} = \gamma_{000} + \gamma_{001} GDP + \gamma_{002} GDP/capita + \gamma_{003} OFDI/GDP + U_{00j}$	
$\beta_{10j} = \gamma_{100} \qquad \qquad \qquad \beta_{01j} = \gamma_{010}$	
$\beta_{20j} = \gamma_{200} \qquad \qquad \qquad \beta_{02j} = \gamma_{020}$	
$\beta_{30j} = \gamma_{300} \qquad \qquad \qquad \beta_{03j} = \gamma_{030}$	
$\beta_{40j} = \gamma_{400} \qquad \qquad \qquad \beta_{04j} = \gamma_{040}$	
$\beta_{50j} = \gamma_{500}$	
$\beta_{60j} = \gamma_{600}$	
$\beta_{70j} = \gamma_{700}$	
$\beta_{80j} = \gamma_{800}$	
$\beta_{90j} = \gamma_{900}$	
Combined	
$Y_{tij} = \gamma_{000} + \gamma_{001} GDP + \gamma_{002} GDP/capita + \gamma_{003} OFDI/GDP + \gamma_{100} CR + \gamma_{200} size + \gamma_{300} leverage + \gamma_{400} age + \gamma_{500} SO + \gamma_{600} IO + \gamma_{700} SO^2 + \gamma_{800} Breadth + \gamma_{900} Depth + \gamma_{010} inddum1 + \gamma_{020} inddum2 + \gamma_{030} inddum3 + \gamma_{040} inddum4 + e_{tij} + r_{0ij} + U_{00j}$	

Note: Y_{tij} : dependent variables—three measures of firm performance.

Table 5.15 presents the results. For ROA, we see marginally significant support for the international diversification-performance relationship and for the state-ownership relationship. When the meditational effect is tested, state squared loses its significance, while Breadth is significant (0.02, $p < 0.05$).

Table 5.15 Results of Hypotheses 3, 4 and 5

	Controls and First Order			H3			H4			H5		
	Tobin's q	ROA	ROS	Tobin's q	ROA	ROS	Tobin's q	ROA	ROS	Tobin's q	ROA	ROS
Fixed effects:												
Constant	6.55 (4.10)	0.19* (0.09)	0.48 (0.29)	3.41 (3.29)	0.41 ⁺ (0.21)	0.57 ⁺ (0.30)	6.59 ⁺ (4.07)	0.18* (0.09)	0.47 (0.29)	3.36 (3.34)	0.38* (0.19)	0.58 ⁺ (0.30)
CR	-0.07 (0.09)	-0.01 (0.01)	-0.01 (0.01)	0.29 (0.42)	0.01 (0.01)	0.01 (0.01)	-0.07 (0.09)	-0.01 (0.02)	-0.01 (0.01)	-0.03 (0.07)	-0.01 (0.01)	0.06 (0.12)
Leverage	-0.39 (0.66)	-0.21** (0.07)	-0.28** (0.08)	0.68* (0.29)	-0.27** (0.08)	-0.26** (0.07)	-0.36 (0.66)	-0.22** (0.07)	-0.27** (0.09)	-0.67 (0.78)	-0.25** (0.09)	-0.26** (0.08)
Size	-0.15 (0.10)	0.03** (0.01)	0.01 (0.01)	-0.19 (0.31)	0.02 (0.02)	0.01 (0.01)	-0.14 (0.10)	0.02* (0.01)	0.02 (0.03)	-0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Age	-0.01 (0.01)	0.00 (0.00)	0.00 (0.00)	-0.01 (0.01)	0.02 (0.02)	-0.01 (0.03)	-0.01 (0.01)	0.00 (0.00)	0.02 (0.03)	-0.01 (0.02)	0.01 (0.01)	-0.01 (0.01)
GDP	-0.30 (0.20)	-0.02** (0.01)	-0.03 ⁺ (0.02)	-0.76 (0.54)	-0.03** (0.01)	-0.05* (0.02)	-0.30 (0.19)	-0.02** (0.01)	0.27 (0.22)	-0.18 (0.20)	-0.03** (0.01)	-0.05* (0.02)
GDP/capita	-0.01 (0.10)	-0.01 (0.01)	-0.01 (0.02)	0.30 (0.63)	-0.02 (0.02)	-0.01 (0.02)	-0.06 (0.11)	-0.01 (0.01)	-0.07 (0.07)	0.03 (0.09)	-0.01 (0.01)	-0.01 (0.02)
OFDI/GDP	-0.01 (0.01)	-0.00 (0.00)	-0.01 (0.01)	-0.03 (0.02)	-0.01 (0.01)	0.01 (0.01)	-0.03 (0.06)	-0.01 (0.02)	0.02 ⁺ (0.01)	-0.01 (0.01)	-0.01 (0.01)	0.00 (0.01)
SO	-0.37 (0.59)	-0.04 ⁺ (0.02)	-0.02 (0.04)	-0.10 (0.26)	-0.05 (0.05)	-0.05 (0.06)	-1.71 (1.68)	0.49 (0.64)	1.22 (1.20)	-2.36 (2.49)	-0.21 (0.14)	-0.11 (0.20)
IO	1.08 ⁺ (0.59)	0.01 (0.01)	-0.07 (0.07)	3.20 ⁺ (1.83)	0.02 (0.03)	0.01 (0.01)	1.11 ⁺ (0.60)	-0.01 (0.01)	-0.05 (0.06)	1.08 (0.72)	0.03 (0.03)	0.01 (0.02)
SO ²							-1.70 (1.44)	-1.43 ⁺ (0.77)	-3.59 ⁺ (2.13)	-2.84 (3.67)	0.22 (0.18)	0.08 (0.20)
Breadth				0.11 (0.26)	0.01 (0.01)	0.02* (0.01)				0.04 (0.09)	0.01 (0.01)	0.02* (0.01)
Depth				0.38 (0.46)	0.02 ⁺ (0.01)	0.03* (0.01)				0.16 (0.21)	0.02* (0.01)	0.03* (0.01)
Industry Dummies Included												
Random effects:												
Sd(country)		0.01	0.04		0.03	0.05*		0.01	0.03		0.02	0.05*
Sd(firm)	3.03***	0.06***	0.18***	5.07***	0.08***	0.09***	3.03***	0.06***	0.19***	1.45***	0.08***	0.09***
Sd(residual)	1.11***	0.04***	0.17***	2.11***	0.04***	0.07***	1.11***	0.04***	0.17***	0.95***	0.04***	0.07***
Wald Chi-square	16.72 ⁺	168.61***	27.36**	18.36	65.96***	39.93**	19.84 ⁺	171.05***	29.19**	17.63	68.22**	39.95***
LR	335.51***	310.81***	162.27***	211.32***	129.04***	71.77**	388.78***	312.86***	160.72***	116.62***	124.28**	73.89***

Note: ⁺ p<0.10, * p < 0.05, ** p < 0.01, *** p < 0.001

For ROS, the results are stronger. We see significant support for the international diversification-performance relationship and marginally significant support for the state-ownership relationship. When the mediational effect is tested, state squared lost its significance, while both Breadth is significant (0.02, $p < 0.05$) and Depth is significant (0.03, $p < 0.05$). These results suggested that Hypothesis 5 is partially supported.

I further adopt Sobel test (Sobel, 1982) to investigate on the above results to decide what kind of the mediation effect, none, partial or full they belong to (Jose, 2008). I.e. there is no significant indirect effect if the Sobel test z-value is not significant (< 1.96); the mediational relationship is partial if the Sobel test z-value is significant (> 1.96) and the effect ratio is lower than .8; and the mediational relationship is full if the Sobel test z-value is significant (> 1.96) and the effect ratio is over .8 (Jose, 2008). Only for ROS, the mediational effects were significant. For Depth, $Z = 1.66$, suggesting a marginally significance. For Breadth, $Z = 2.14$, suggesting a significance at $p < 0.05$. In terms of magnitude, an effect ratio of .02 (indirect effect over total effect) by Depth for ROS and 0.04 by Breadth for ROS suggests a partial mediational relationship.

Seven-year Sample Tests

I only briefly introduce the results of the seven-year sample with the intention of comparison with the results of the three-year sample. I expect insights and differences due to the different time periods (short-term and long-term). HLM models for the seven-year sample are the same as those for the three-year sample. Thus, I only include results tables and explain differences in findings based on the comparison.

Descriptive Statistics

Table 5.16 presents summary statistics and the correlation relationships for Level-1 variables. Table 5.17 presents summary statistics and the correlation relationships for Level-3 variables. I include dependent variables in both Table 5.16 and Table 5.17. Dependent variables include three measures of performance (ROA, ROS, and Tobin's q) for Hypotheses 3, 4 and 5 and two measures of international diversification (Depth and Breadth) for Hypotheses 1a, 1b, 2a, and 2b.

Level-1 Descriptive Statistics

Level-1 variables include all firm-level variables, including dependent variables, independent variables, as well as four control variables. The mean of institutional ownership here (0.21) is lower than that in the three-year sample (0.23).

As shown in Table 5.16, four control variables are significantly related to dependent and independent variables but to different extent, suggesting that these variables need to be controlled in analytic models.

First, Tobin's q is significantly related to both dimensions of international diversification and both state ownership and institutional ownership. ROS is different from Tobin's q, since it is not significantly related to any dimension of international diversification, but only significantly related to ownership structure. However, ROA is not significantly related to international diversification and ownership structure at all.

Second, both Breadth and Depth are significantly related to state ownership and institutional ownership. Further, Breadth is significantly related to Depth. Third, state ownership is negatively but significantly related to institutional ownership.

Table 5.16
Descriptive Statistics and Correlations for Level 1 Variables (seven-year sample)

Variable	Mean	s.d.	1	2	3	4	5	6	7	8	9	10
1. Tobinq	1.74	2.71										
2. ROS	0.07	0.32	0.09*									
3.ROA	0.05	0.21	0.16*	0.62*								
4.Depth	1.02	0.76	0.07*	-0.06	-0.07							
5. Breath	1.43	1.07	0.09*	0.02	0.02	0.51*						
6. State Ownership (SO)	0.29	0.24	-0.12*	0.09*	-0.04	-0.16*	-0.09*					
7. Institutional Ownership (IO)	0.21	0.18	0.12*	-0.05	0.01	0.09*	0.10*	-0.39*				
8. Leverage	0.56	0.23	-0.12*	-0.27*	-0.33*	0.08*	0.14*	0.02	0.03			
9. CR	1.81	2.31	0.06	-0.06	0.02	-0.03	-0.09*	-0.16*	0.01	-0.32*		
10. Age	40	42	0.07	0.02	0.04	0.02	0.21*	-0.02	0.04	0.05	-0.08	
11. Size	8.45	1.78	-0.11*	0.07	0.07	0.09*	0.30*	0.25*	-0.04	0.22*	-0.22*	0.20*

Note:

1. Both Breath and Size are transformed using logs.
2. All values that are greater than 0.11 or less than -0.11 are significant at 0.05.
3. ⁺ p<0.10, * p < 0.05, ** p < 0.01, *** p < 0.001
4. Factor loadings of Depth: FSTS 0.79; FATA 0.82; OSTs 0.63. Cronbach alpha: 0.73.
5. Factor loadings of Breadth: NFC 0.83; NFS 0.92. Cronbach alpha: 0.76.
6. Maximum VIF=3.50, Mean VIF=2.13.
7. N=1372.

In sum, ownership structure has statistically significant correlations with international diversification. Meanwhile, performance is significantly related to both international diversification and ownership structure.

Level-3 Descriptive Statistics

Level-3 variables include three country-level control variables. As mentioned above, I also included dependent variables in Table 5.17. OFDI/GDP are not significantly related to any measure of performance, but significantly related to two measures of international diversification. GDP is significantly related to all three measures of performance, but only to Depth. GDP /capita is significantly related to Tobin's q and ROA of performance, and only to Depth.

In sum, these results suggest that these country-level variables need to be controlled in analytic models.

Centering Variables

I center my variables to reduce non—essential multicollinearity problems by changing the scaling of those variables involved. As a robustness check, I conduct a pooled estimation of the above models and calculate the variance inflation factors (VIF). After centering my variables, I check the potential multicollinearity problem for each of equations. The maximum VIF is 3.50 while the mean VIF is 2.13. Thus, I conclude that the multicollinearity is not an issue for my seven-year sample.

Table 5.17
Descriptive Statistics and Correlations for Level 3 Variables (seven-year sample)

Variable	Mean	s.d.	1	2	3	4	5	6	7
1. Tobinq	1.74	2.71							
2. ROS	0.07	0.32	0.09*						
3.ROA	0.05	0.21	0.16*	0.62*					
4.Depth	1.02	0.76	0.07*	-0.06	-0.07				
5. Breath	1.43	1.07	0.09*	0.02	0.02	0.51*			
6. GDP	6.31	1.35	-0.12*	-0.10*	-0.29*	-0.06	-0.13*		
7. GDP/capita	9.58	0.95	0.08*	-0.05	-0.08*	0.05	0.27*	-0.37*	
8. OFDI/GDP	26.98	27.71	0.05	-0.05	-0.02	0.24*	0.19*	-0.42*	0.56*

Note:

1. Both GDP and GDP/capita are transformed using logs.
2. All values that are greater than 0.11 or less than -0.11 are significant at 0.05.
3. ⁺ p<0.10, * p < 0.05, ** p < 0.01, *** p < 0.001

HLM Null Model

I estimate the null model for each of two dependent variables (three measures of performance and two dimensions of international diversification). Results of these null models are in Table 5.18. I examined the significance of between Level-2 variance and between Level-3 variance, and their intra class correlation (ICC), which indicates the proportion of variance in the outcome variables that is explained by between-subjects. As indicated in Table 5.18, when the outcome is Depth, both between Level-2 dyads (0.74, $p < 0.001$; ICC=0.49) and between Level-3 dyads (0.44, $p < 0.001$; IC=0.17) variances are significant. When the outcome is Breadth, both between Level-2 dyads (0.65, $p < 0.001$; ICC=0.72) and between Level-3 dyads (0.29, $p < 0.001$; ICC=0.14) variances are significant. Thus, the results suggest that important level-2 and Level-3 predictors are needed to explain Depth and Breadth.

For the three measures of performance, when the outcome is ROA, both between Level-2 dyads (0.05, $p < 0.001$; ICC=0.06) and between Level-3 dyads (0.05, $p < 0.001$; IC=0.06) variances are significant. When the outcome is ROS, both between Level-2 dyads (0.14, $p < 0.001$; ICC=0.18) and between Level-3 dyads (0.08, $p < 0.05$; IC=0.06) variances are significant. However, when the outcome is Tobin's q, only between Level-2 dyads (2.06, $p < 0.05$; ICC=0.63) variance is significant. These results suggest that important level-2 and Level-3 predictors are needed to explain ROA and ROS, while important level-2 predictors are needed to explain Tobin's q. thus, I proceed with hypotheses testing by using STATA multilevel modeling.

Table 5.18
Results of Null Models (seven-year sample)

	Breadth of ID	Depth of ID	ROA	ROS	Tobin's q
Constant	1.38***	1.03***	0.06***	0.09***	1.73***
Sd(country)	0.44***	0.29**	0.05***	0.08*	0.29
Sd(firm)	0.74***	0.65***	0.05***	0.14***	2.06*
Sd(residual)	0.61***	0.29***	0.19***	0.28***	1.59**
LR	696.52.28***	500.93***	57.97***	158.65***	862.60***

Note: ⁺ $p < 0.10$, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Hypothesis 1a

Table 5.19 present the results. As shown in Table 5.19, state squared is not significant to Depth (-0.78, n.s.). The sign is negative, which suggests an inverted-U shaped relationship between state ownership and Depth. For Breadth, the relationship is stronger than that for the breadth (-3.14, $p < 0.001$) (the threshold for Breadth is 33%). These results suggest that Hypothesis 1 is partially supported.

Hypothesis 2a

Table 5.19 presents the results. For Depth, the interaction term is positive and

significant (3.24, $p < 0.05$), while the second-order term (state squared) is not significant (-0.34, n.s.). For Breadth, the interaction term is positive and significant (3.72, $p < 0.05$), while the second-order term (state squared) is still significant (-3.02, $p < 0.01$). For Breadth, when the institutional ownership is low (-1SD), the relationship is similar to that in H1a (the threshold is 37%). When the institutional ownership is high (+1SD), the relationship moves upward and to the right (the threshold is 48%). These results suggest that Hypothesis 2a is supported and institutional investors do help to improve the quality of corporate governance of SMNEs as proposed.

Hypothesis 1b

For SMNEs in developed countries, no support is found for Depth (-1.04, n.s.) but strong support is found for Breadth (-1.62, $p < 0.05$). For SMNEs in developing and emerging countries, the inverted U-shaped relationship is significant for Breadth (-3.83, $p < 0.001$) (the threshold point is 34%) while not significant for Depth (-0.49, n.s.).

Next, following the technique suggested by Cohen et al. (2003) and used by Hitt et al. (2004), I examine differences between the two subsamples (SMNEs in developed countries and SMNEs in developing and emerging countries) on the state ownership—international diversification relationship.

Table 5.19
Results for H1a and H2a (seven-year sample)

			H1a		H2a	
	Depth	Breadth	Depth	Breadth	Depth	Breadth
Fixed effects:						
Constant	-1.04 (1.44)	-3.96*** (1.50)	-1.09 (1.28)	-4.47** (1.38)	-1.03 (1.27)	-4.38** (1.52)
CR	0.02 (0.03)	0.02 (0.03)	0.02 (0.03)	0.03 (0.03)	-0.02 (0.03)	0.03 (0.03)
Leverage	0.06 (0.11)	0.22 (0.23)	-0.01 (0.06)	0.23 (0.23)	0.07 (0.11)	0.24 (0.23)
Size	0.07 (0.04)	0.26*** (0.08)	0.07* (0.03)	0.26** (0.08)	0.06 ⁺ (0.03)	0.26*** (0.08)
Age	-0.01 (0.02)	0.01 (0.01)	-0.01 (0.01)	0.02 (0.02)	-0.01 (0.01)	0.01 (0.01)
GDP	0.03 (0.08)	0.07 (0.08)	0.03 (0.08)	0.09 (0.08)	0.03 (0.08)	0.09 (0.08)
GDP/capita	0.05 (0.11)	0.45** (0.14)	0.05 (0.11)	0.46** (0.14)	0.05 (0.09)	0.46** (0.14)
OFDI/GDP	0.06 (0.03)	0.04 (0.03)	0.08 (0.04)	0.05 (0.03)	0.07 ⁺ (0.04)	0.05 (0.03)
SO	-0.12 (0.16)	-0.30 (0.21)	-0.59 (0.46)	2.09* (0.96)	0.39 (0.27)	2.27*** (0.54)
IO	0.35* (0.15)	0.92** (0.29)	0.33* (0.15)	0.71** (0.26)	1.10* (0.49)	2.20*** (0.49)
SO*IO					-0.29 (0.75)	-1.93* (0.86)
SO ²			-0.78 (0.59)	-3.14*** (1.02)	-0.34 (0.29)	-3.02** (0.96)
IO*SO ²					3.24* (1.43)	3.72** (1.72)
Industry dummy included						
Random effects:						
Sd(country)	0.22	0.35**	0.24	0.35**	0.22	0.36**
Sd(firm)	0.66***	0.65***	0.67***	0.64***	0.66***	0.64***
Sd(residual)	0.29***	0.59***	0.24***	0.59***	0.29***	0.58***
Wald Chi-square	23.91*	155.89***	27.20*	188.37***	30.19*	204.50***
LR	423.23***	458.07***	216.82***	464.72***	417.82***	467.04***

Note: ⁺ p < 0.10, * p < 0.05, ** p < 0.01, *** p < 0.001

Table 5.20
Results for Hypothesis 1b (seven-year sample)

	Developed				Developing & Emerging			
	Control Variables and First-Order		Second Order		Control Variables and First-Order		Second Order	
	Depth	Breadth	Depth	Breadth	Depth	Breadth	Depth	Breadth
Fixed effects:								
Constant	-2.18 (2.83)	-3.68 (2.51)	-2.91 (3.69)	-2.73 (1.75)	0.29 (0.40)	-2.81* (1.42)	0.50 (0.56)	-3.17* (1.56)
CR	0.03 (0.05)	-0.03 (0.04)	0.02 (0.05)	-0.02 (0.04)	0.02 (0.03)	0.06 (0.04)	0.02 (0.04)	0.06 (0.04)
Leverage	0.35 (0.36)	0.26 (0.28)	0.37 (0.36)	0.29 (0.28)	-0.11 (0.23)	0.09 (0.37)	-0.10 (0.25)	0.48 (0.43)
Size	0.12* (0.05)	0.29*** (0.09)	0.11* (0.05)	0.29*** (0.10)	0.02 (0.05)	0.18*** (0.05)	0.02 (0.05)	0.19*** (0.05)
Age	-0.01 (0.02)	0.01 (0.02)	-0.01 (0.02)	0.01 (0.02)	0.02 (0.04)	0.01 (0.01)	0.02 (0.04)	0.01 (0.01)
GDP	-0.04 (0.12)	0.08 (0.14)	-0.03 (0.14)	0.10 (0.14)	0.14 (0.34)	0.22 (0.16)	0.14 (0.35)	0.17 (0.16)
GDP/capita	1.08 (0.81)	0.58 (0.87)	1.15 (0.82)	0.66 (0.88)	-0.06 (0.47)	0.54* (0.27)	-0.06 (0.48)	0.45 (0.29)
OFDI/GDP	-0.02 (0.04)	0.04 (0.06)	-0.02 (0.05)	0.04 (0.07)	0.11** (0.04)	0.03 (0.04)	0.12** (0.04)	0.03 (0.04)
SO	-0.43 (0.31)	-0.09 (0.24)	1.20 ⁺ (0.67)	1.35* (0.63)	-0.09 (0.28)	-0.13 (0.33)	-0.97 (0.71)	2.63*** (0.79)
IO	0.79** (0.24)	0.68* (0.34)	0.71** (0.25)	0.61** (0.21)	0.09 (0.19)	1.20*** (0.39)	0.09 (0.19)	0.98** (0.30)
SO squared			-1.04 (0.81)	-1.62** (0.76)			-0.49 (0.36)	- 3.83*** (0.83)
Industry dummy included								
Random effects:								
Sd(country)	0.41**	0.51**	0.41**	0.52**	0.03	0.19	0.03	0.20
Sd(firm)	0.63***	0.73***	0.64***	0.72***	0.65***	0.51***	0.66***	0.52***
Sd(residual)	0.28***	0.52***	0.28***	0.52***	0.30***	0.66***	0.30***	0.64***
Wald Chi-square	22.18**	86.00***	24**	97.93***	16.02	62.00** *	18.70	82.96** *
LR	175.68** *	368.79** *	177.00** *	379.61** *	233.97** *	71.44** *	228.93** *	78.94** *

Note: ⁺ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

Table 5.20 presents the results. The results presented in Table 5.21 show that the coefficients for Depth are only negative and marginally significant in the subsample of SMNEs in developing and emerging countries. Furthermore, the relevant z statistic is negative and not significant ($z=-0.19$; n.s.).

Moreover, the results presented in Table 5.21 show that the coefficients for Breadth are only negative and significant in the subsample of SMNEs in developing and emerging countries. Furthermore, the relevant z statistic is positive and statistically significant ($z=2.01$; $p<0.05$), suggesting that for SMNEs in developing and emerging countries, state ownership has a stronger impact on Breadth for those in developed countries.

These results suggest that Hypothesis 1b is partially supported.

Table 5.21
Coefficients Comparison for H1b and H2b (seven-year sample)^a

	Developed		Developing & Emerging		Z
	Coefficients	S.E.	Coefficients	S.E.	
H1b					
Depth	-1.04	0.81	-0.49	0.36	-0.19
Breadth	-1.41**	0.79	-3.83***	0.87	2.01*
H2b					
Depth	6.05**	1.66	3.24*	1.49	1.96*
Breadth	6.98**	2.39	8.42**	2.50	-0.75

a. Two-tail tests

b. ⁺ $p<0.10$, * $p<0.05$, ** $p<0.01$, *** $p<0.001$

Table 5.22
Results for Hypothesis 2b (seven-year sample)

	Developed		Developing & Emerging	
	Depth	Breadth	Depth	Breadth
Fixed effects:				
Constant	-3.04 (2.37)	-3.71 (4.82)	-1.09 (1.46)	-5.13** (1.49)
CR	0.03 (0.05)	-0.02 (0.04)	0.02 (0.03)	0.06 (0.04)
Leverage	0.36 (0.37)	0.26 (0.28)	0.05 (0.22)	-0.03 (0.36)
Size	0.12* (0.05)	0.29*** (0.10)	0.07* (0.03)	0.17*** (0.05)
Age	-0.01 (0.02)	0.02 (0.02)	0.02 (0.02)	0.03** (0.01)
GDP	-0.03 (0.13)	0.10 (0.14)	0.03 (0.09)	0.23 (0.16)
GDP/capita	1.14 (0.81)	0.68 (0.89)	0.06 (0.18)	0.52* (0.27)
OFDI/GDP	-0.02 (0.04)	0.04 (0.06)	0.07* (0.04)	0.02 (0.04)
SO	1.36* (0.78)	1.54* (0.70)	1.11 (0.78)	3.06*** (0.87)
IO	1.46* (0.57)	1.43* (0.58)	1.48* (0.68)	0.67* (0.30)
SO ²	-0.37 (0.42)	-1.65** (0.51)	-0.34 (0.30)	-1.74*** (0.45)
IO*SO	-2.02 (2.27)	-2.30* (0.98)	-0.29 (0.75)	-1.76 (1.55)
IO*SO ²	6.05*** (1.66)	6.98** (2.39)	3.07* (1.49)	8.42** (2.50)
Industry dummy included				
Random effects:				
Sd(country)	0.41**	0.54***	0.12	0.17***
Sd(firm)	0.64***	0.72***	0.65***	0.53***
Sd(residual)	0.28***	0.52***	0.30***	0.63***
Wald Chi-square	26.44**	90.29***	22.84*	97.32***
LR	189.71***	365.38***	209.22***	84.07***

Note: ⁺ p<0.10, * p < 0.05, ** p < 0.01, *** p < 0.001

Hypothesis 2b

Table 5.22 presents the results. Support is found for Depth (6.05, $p < 0.001$) and for Breadth (6.98, $p < 0.05$) for SMNEs from developed countries. Also, support is found for SMNEs from developing and emerging countries on either Depth (3.07, $p < 0.05$) and Breadth (8.42, $p < 0.01$).

I also conduct analysis on the coefficients differences between two subsamples. The results presented in Table 5.22 show that the coefficients for Depth are positive and significant in both subsamples of SMNEs. Furthermore, the relevant z statistic is positive and statistically significant ($z = 1.96$; $p < 0.05$), suggesting that for SMNEs in developed countries, institutional ownership has a stronger moderation effect on the state ownership -- Depth relationship than for those in developing and emerging countries.

Moreover, the results presented in Table 5.22 show that the coefficients for Breadth are both positive and significant in the subsample of SMNEs in developed countries. Furthermore, the relevant z statistic is not significant ($z = -0.75$; n.s.), suggesting that we may not conclude that for SMNEs in developed countries, institutional ownership has a stronger moderation effect on the state ownership -- Breadth relationship than for those in developing and emerging countries.

These results suggest that Hypothesis 2b is partially supported.

Hypothesis 3

As shown in Table 5.23, significant support is found for Tobin's q (0.13, $p < 0.05$). Only marginally significant support is found by Depth for ROA (0.02, $p < 0.10$) while both Depth (0.02, $p < 0.10$) and Breadth (0.02, $p < 0.05$) provide support for ROS. These

results suggest that Hypothesis 3 is partially supported.

Hypothesis 4

As shown in Table 5.23, no support is found for ROA. Only marginally significant support was found for ROS (-1.71, $p < 0.10$) and Tobin's q for (-3.02, $p < 0.05$). These results suggest that Hypothesis 4 is partially supported.

Hypothesis 5

As shown in Table 5.23, because no support for the relationship between international diversification and Tobin's q , as well as the relationship between state ownership and firm performance, the meditational effect of international diversification does not exist for Tobin's q .

For ROA, we see marginally significant support for the international diversification-performance relationship and for the state ownership--performance relationship. When the meditational effect was tested, state squared loses its significance, while Breadth is significant (0.02, $p < 0.05$).

For ROS, the results are stronger. We see significant support for the international diversification-performance relationship and marginally significant support for the state-ownership relationship. When the meditational effect is tested, state squared loses its significance, while both Breadth is significant (0.02, $p < 0.05$) and Depth is significant (0.03, $p < 0.05$). These results suggested that Hypothesis 5 is partially supported.

Table 5.23 Results for Hypotheses 3, 4 and 5 (seven-year sample)

	Controls and first order			H3			H4			H5		
	Tobin's q	ROA	ROS	Tobin's q	ROA	ROS	Tobin's q	ROA	ROS	Tobin's q	ROA	ROS
Fixed effects:												
Constant	2.70 (3.04)	0.33* (0.15)	0.59* (0.28)	2.08 (2.89)	0.86 (0.53)	0.56 (0.34)	2.77 (3.16)	0.33* (0.15)	0.59 (0.28)	2.14 (2.68)	0.37 (0.37)	0.57 ⁺ (0.30)
CR	-0.07 (0.09)	-0.01 (0.01)	-0.04** (0.01)	-0.09 (0.12)	0.03 (0.01)	-0.01 (0.01)	-0.07 (0.06)	-0.01 (0.01)	-0.04** (0.01)	-0.06 (0.07)	0.03* (0.02)	-0.01 (0.01)
Leverage	-0.15 (0.47)	-0.17** (0.05)	-0.36** (0.10)	-0.57 (0.49)	-0.08 (0.08)	-0.22** (0.07)	-0.12 (0.38)	-0.17** (0.05)	-0.37** (0.11)	-0.58 (0.54)	-0.09 (0.09)	-0.22** (0.07)
Size	-0.07 (0.07)	0.01** (0.00)	0.02* (0.01)	0.03 (0.08)	0.02 (0.02)	0.01 ⁺ (0.00)	-0.09 (0.07)	0.02* (0.01)	0.02* (0.01)	0.03 (0.06)	0.01 (0.01)	0.01 ⁺ (0.00)
Age	-0.01 (0.01)	0.00 (0.00)	0.00 (0.00)	-0.01 (0.01)	-0.01 (0.02)	-0.01 (0.02)	-0.01 (0.01)	0.00 (0.00)	0.01 (0.02)	-0.01 (0.02)	0.01 (0.01)	-0.01 (0.01)
GDP	-0.24 ⁺ (0.14)	-0.02* (0.01)	-0.04* (0.02)	-0.17 (0.16)	-0.04* (0.02)	-0.05** (0.02)	-0.24 (0.15)	-0.02 ⁺ (0.01)	-0.04* (0.02)	-0.17 (0.14)	-0.03 ⁺ (0.02)	-0.05** (0.02)
GDP/capita	0.17 (0.24)	-0.02* (0.01)	-0.01 (0.01)	0.06 (0.12)	-0.08 (0.05)	-0.01 (0.03)	0.16 (0.21)	0.01 (0.01)	-0.02 (0.02)	0.05 (0.11)	-0.03 (0.03)	-0.01 (0.02)
OFDI/GDP	-0.01 (0.01)	0.08* (0.04)	-0.01 (0.01)	-0.03 (0.03)	0.02* (0.01)	0.01 (0.01)	-0.01 (0.01)	-0.02 (0.02)	-0.08 (0.07)	-0.01 (0.01)	0.02* (0.01)	0.01 (0.01)
SO	-0.37 (0.59)	-0.02 (0.02)	-0.02 (0.04)	-0.28 (0.36)	-0.04 (0.06)	-0.13** (0.05)	2.86* (1.28)	-0.22 (0.35)	0.71 (0.83)	-0.28 (0.47)	-0.13 (0.17)	-0.22* (0.11)
IO	1.08 ⁺ (0.59)	0.05 ⁺ (0.03)	-0.05 (0.05)	0.78* (0.36)	-0.01 (0.03)	0.05 (0.04)	2.29** (0.68)	0.05 ⁺ (0.03)	0.04 (0.05)	0.74* (0.37)	-0.01 (0.03)	-0.04 (0.04)
SO ²							-3.02* (1.48)	-0.45 (0.74)	-1.71 ⁺ (0.93)	-0.53 (0.63)	0.11 (0.22)	0.12 (0.14)
Breadth				0.13* (0.06)	0.01 (0.01)	0.02* (0.01)				0.13* (0.06)	0.01 (0.01)	0.02* (0.01)
Depth				0.06 (0.11)	0.03 ⁺ (0.02)	0.02 ⁺ (0.01)				0.06 (0.12)	0.03 ⁺ (0.02)	0.02* (0.01)
Industry dummy included												
Random effects:												
Sd(country)		0.05***	0.06***		0.07**	0.04*		0.05***	0.06**		0.08***	0.04*
Sd(firm)	2.18***	0.04***	0.13***	5.07***	0.04*	0.08***	2.20***	0.04***	0.14***	1.40***	0.04*	0.08***
Sd(residual)	1.59***	0.13***	0.22***	2.11***	0.20***	0.08***	1.59***	0.13***	0.21***	0.71***	0.20***	0.09***
Wald Chi-square	37.96**	58.33***	75.46**	34.36**	35.45**	62.04***	41.83***	59.86***	76.80**	25.93*	33.87***	62.69***
LR	748.45***	67.36***	182.36***	211.32***	68.51***	80.92***	749.42***	75.00***	178.51***	311.85***	80.71***	78.95***

Note: ⁺ p<0.10, * p<0.05, ** p<0.01, *** p<0.001

For ROS, the meditational effect is significant for the breadth. For the breadth, $Z=2.05$, suggesting a significance at $p<0.05$. In terms of magnitude, an effect ratio of 0.04 by Breadth for ROS suggests a partial mediational relationship. For Tobin's q , the meditational effect is marginally significant for the breadth. For Breadth, $Z=1.77$, suggesting a significance at $p<0.10$. In terms of magnitude, an effect ratio of 0.14 by Breadth for Tobin's q suggests a partial mediational relationship.

Results Comparison of the Three-year and Seven-year Samples

Table 5.24
Summary of Results (HLM Models)*

	Three-Year Sample				Seven-Year Sample			
Hypotheses	Depth	Breadth	Tobin's q	ROA	Depth	Breadth	Tobin's q	ROA
1a SO--ID	Marginally Supported	Supported			Not Supported	Supported		
1b Developed on H1	Supported	Supported			Not supported	Supported		
2a IO	Not Supported	Supported			Supported	Supported		
2b Developed on H2	Supported	Marginally Supported			Supported	Not Supported		
3ID--Performance			Not Supported	Partially & Marginally Supported			Partially Supported	Partially & Marginally Supported
4 SO--Performance			Not Supported	Marginally Supported			Supported	Not Supported
5 Mediation of ID			Not Supported	Partially Supported			Partially Supported	Not Supported

*Differences between the three-year sample and the seven-year sample are highlighted in the three-year sample results

Based on the comparison of results (Table 5.24), I compare the results of the three-year sample with those of the seven-year sample and identify differences in results for most hypotheses. More specifically, first, we see relatively stronger relationship

between state ownership and international diversification (H1 and H2) in the three-year sample than that in the seven-year sample. institutional environments. Second, for the three-year sample, we see the negative sign, though not significant, for the moderation effect of institutional environment for SMNEs in developing and emerging countries, which may provide evidence that in developing countries, due to the existence of institutional voids, institutional investors may negatively influence the function of state ownership on the SMNE's international diversification rather than positively, which is well acknowledged in the literature and supported by the subsample in developed countries.

Third, for Hypotheses 3, 4, and 5, in the seven-year sample, Tobin's q obtains support for proposed relationships, while in the three-year sample, no support at all for this measure of performance. Fourth, for Hypotheses 3, 4, and 5, for ROS, consistent results are found on proposed relationships. Compared to ROA, ROS is a ratio with two "flow" measures, which reduces the influence of inflation and accounting standards (Cuervo-Cazurra & Dau, 2009).

I further discuss the insights from the results comparison in the next chapter.

Robustness Tests

I run several additional analyses, not presented here for the sake of brevity, to check the consistency and robustness of my findings.

First, I conduct GLS models to deal with cross-sectional time-series data, and results are briefly shown in Table 5.25.

Table 5.25
Coefficients Comparison for H1b and H2b (GLS Models)^a

	Developed		Developing & Emerging		
Three-Year Sample	Coefficients	S.E.	Coefficients	S.E.	Z
H1b					
Depth	-0.58	0.83	-3.47*	1.58	1.82 ⁺
Breadth	-0.11	0.89	-3.13*	1.56	2.89*
H2b					
Depth	4.56	3.42	3.56	3.08	0.83
Breadth	1.47	1.87	12.30***	3.44	-2.25*
Seven-Year Sample					
H1b					
Depth	-0.38	0.88	-1.06	0.95	0.77
Breadth	-1.02	0.78	-1.67*	0.85	0.96
H2b					
Depth	4.63*	2.34	3.51 ⁺	1.96	1.39
Breadth	2.68	1.75	5.48*	2.36	-1.85 ⁺

a. Two-tail tests

b. Note: ⁺ p<0.10, * p < 0.05, ** p < 0.01, *** p < 0.001

More results are shown in Table 5.26. Compared to the results of the HLM technique, for the first two sets of hypotheses, the results of the GLS technique provide weaker results. For instance, using the GLS model, no support at all is found on the differences of institutional environment in terms of the moderation effect of institutional ownership. In contrast, using the HLM model, we identify generally significant impact of home country institutional environment on the effect of institutional ownership. Further, using GLS model in both three-year and seven-year samples, I find significant impact of institutional ownership (H2b) in SMNEs in developing countries while not significant in SMNEs in developed countries, which is opposite to the findings in using HLM technique.

For the relationships with performance, for the three-year sample, the results of two techniques are consistent in terms of the significance level. However, using the GLS model, for the seven-year sample, no support is found for the international diversification—Tobin's q relationship and for the state ownership—Tobin's q relationship, while support is found for the state ownership—ROA. The results are opposite from those using the HLM model. Given the advantages of the HLM technique and the characteristics of my data (multilevel), I may expect that the estimates using the HLM technique are more accurate and more preferable.

Table 5.26
GLS Results (three-year sample)

	H1a		(Developed) H1b (Developing)		H2a		(Developed) H2b (Developing)		H3			H4			H5		
	Breadth	Depth	Depth	Depth	Breadth	Depth	Depth	Depth	Tobin's q	ROA	ROS	Tobin's q	ROA	ROS	Tobin's q	ROA	ROS
SO	1.56 (0.96)	-1.15 (0.92)	-0.54 (1.41)	1.91 (1.30)	1.78 + (1.05)	-1.19 (0.92)	-0.85 (1.26)	-2.10 (1.33)	-0.72 (0.51)	-0.06 (-.04)	-0.10 (0.23)	-1.65 (2.11)	0.24 (0.15)	0.28 (0.22)	-2.01 (1.92)	-0.24 (0.14)	-0.21 (0.20)
IO	0.21 (0.28)	0.26 (0.24)	0.25 (0.38)	0.54 + (0.32)	1.44 + (0.82)	0.76 (0.69)	0.43 (0.65)	0.47 (0.34)	2.99 (2.08)	-0.01 (0.01)	-0.08 (0.05)	1.07 + (0.62)	-0.26 (0.21)	-0.13 + (0.07)	1.02 (0.80)	0.01 (0.01)	-0.08 (0.05)
SO ²	-3.44** (1.23)	-1.82 + (0.97)	-0.58 (0.83)	- 3.47* (1.67)	-1.87** (0.55)	-0.81 (0.61)	-0.64 (0.77)	-0.32 (0.70)				-1.63 (2.25)	- 0.51* (0.25)	-0.45 + (0.26)	-1.66 (2.14)	-0.25 (0.18)	-0.15 (0.25)
SO*IO					-1.01 (1.68)	-0.75 (1.42)	-0.13 (0.74)	-1.68 (2.15)									
IO*SO ²					4.53 ⁺ (2.75)	3.51 (2.38)	4.56 (3.42)	3.56 (3.08)									
Depth									0.28 (0.37)	0.02* (0.01)	0.02 + (0.01)				0.12 (0.21)	0.02* (0.01)	0.02 + (0.01)
Breadth									0.14 (0.20)	0.01 (0.01)	0.01 (0.01)				0.67 (0.39)	0.01 (0.01)	0.02 + (0.01)
R-square	0.37	0.12	0.10	0.11	0.38	0.14	0.12	0.11	0.09	0.19	0.18	0.07	0.25	0.09	0.09	0.27	0.18

Note: ⁺ p<0.10, * p < 0.05, ** p < 0.01, *** p < 0.001

Table 5.27
GLS Results (seven-year sample)

	H1a		(Developed) H1b (Developing)		H2a		(Developed) H2b (Developing)		H3			H4			H5		
	Breadth	Depth	Depth	Depth	Breadth	Depth	Depth	Depth	Tobin's q	ROA	ROS	Tobin's q	ROA	ROS	Tobin's q	ROA	ROS
SO	0.68 (0.45)	-0.05 (0.10)	0.79 (0.67)	0.63 (0.72)	0.71 (0.55)	3.07 (5.28)	0.87 (0.84)	-1.74* (0.78)	-1.24 (1.35)	- 0.14* (0.06)	- 0.16** (0.05)	1.51 (1.01)	0.73 (0.56)	0.37* (0.17)	-1.76 (1.50)	-0.27 + (0.16)	- 0.32* (0.12)
IO	-0.11 (0.15)	0.32 (0.16)	0.56* (0.27)	0.22 (0.19)	0.81 + (0.47)	1.01* (0.40)	0.97 (0.61)	1.72** (0.66)	0.07 (1.01)	- 0.13* (0.06)	- 0.12** (0.04)	1.85** (0.48)	-0.02 (0.02)	-0.09 + (0.05)	0.32 (1.04)	-0.11 + (0.06)	- 0.11* (0.05)
SO ²	-1.41** (0.58)	-0.51 (0.65)	-0.38 (0.88)	-1.06 (0.95)	-0.65* (0.26)	-1.46 (0.81)	-1.34* (0.48)	-0.29 + (0.44)				-1.41 (1.53)	- 2.52* (1.28)	-2.21 + (1.26)	-4.83 (3.60)	-0.17 (0.20)	-0.21 (0.14)
SO*IO					4.15 + (2.17)	3.83* (1.80)	-1.64 (1.31)	0.27 (0.92)									
IO*SO ²					2.97* (1.50)	2.80* (1.33)	4.63* (2.34)	3.51 + (1.96)									
Depth									1.32* (0.61)	0.03* (0.01)	-0.01 (0.01)				1.34* (0.66)	0.03* (0.01)	-0.01 (0.01)
Breadth									0.18 (0.18)	0.01 (0.01)	0.01 (0.01)				-0.17 (0.18)	0.03 (0.02)	0.01 (0.01)
R-square	0.27	0.10	0.11	0.13	0.25	0.15	0.22	0.16	0.13	0.12	0.18	0.08	0.08	0.09	0.13	0.12	0.27

Note: ⁺ p<0.10, * p < 0.05, ** p < 0.01, *** p < 0.001

More results are shown in Table 5.27. I also compare results of two samples in Table 5.28.

Table 5.28
Summary of Results (GLS Models)*

	Three-year Sample				Seven-year Sample			
Hypotheses	Depth	Breadth	Tobin's q	ROA	Depth	Breadth	Tobin's q	ROA
1a SO--ID	Marginally Supported	Supported			Not Supported	Not Supported		
1b Developed on H1	Marginally Supported	Supported			Not supported	Not Supported		
2a IO	Not Supported	Marginally Supported			Supported	Supported		
2b Developed on H2	Not Supported	Not Supported			Not Supported	Not Supported		
3ID-- Performance			Not Supported	Partially & Marginally Supported			Partially Supported	Partially Supported
4 SO-- Performance			Not Supported	Marginally Supported			Not Supported	Supported
5 Mediation of ID			Partially & Marginally Supported	Marginally Supported			Partially Supported	Partially Supported

*Differences between the three-year sample and the seven-year sample are highlighted in the three-year sample results

Second, as discussed in Chapter IV, the HLM technique is able to deal with missing data easily (Schonfeld & Rindskopf, 2007). I re-conduct a full set of tests on Depth without the imputed foreign assets ratio data. Although coefficients had minor changes, the significance levels do not change for all my hypotheses, which provide strong support for the multiple imputation method to deal with missing data (Honaker & King, 2010). Moreover, I choose M=20 to re-impute my data on foreign assets. The results are consistent to my previous findings, which provide further support to the multiple imputation method to handle missing data.

Third, I study whether individual dimensions (FSTS, OSTs, and FATA) of Depth have differential influence on firm performance and were influenced by ownership structure. For the three-year sample, results of these partial analyses showed, first, that FATA is significantly influenced by state ownership, while OSTs and FSTS are not. Second, institutional ownership only significantly moderates the relationship between state ownership and OSTs. Third, the three dimensions have different influence on SMNEs' firm performance.

For the seven-year sample, results of these partial analyses show, first, that FATA is marginally significantly influenced by state ownership, OSTs is significantly affected by state ownership, while FSTS is not. Second, institutional ownership moderates the relationship between state ownership and OSTs as well as the relationship between state ownership and FATA. Third, the three dimensions have different influence on three measures of SMNEs' firm performance.

Summary

Overall, the results support most of the hypotheses. The combination of these results suggests that state ownership does influence SMNEs' international strategies. Moreover, these results demonstrate that state ownership affects firm performance somewhat differently, considering different perspectives of firm performance. Further, institutional environments really matter when examining the influence of state ownership on SMNEs' international diversification and firm performance. A further discussion of these empirical results is presented in the next chapter.

CHAPTER VI

DISCUSSION

This chapter discusses the propositions proposed in Chapter II and the results presented in the previous chapter. The first section discusses the unit of analysis --- the state multinational as a hybrid organizational form. The second section discusses the results regarding the impact of state ownership on international diversification, the moderator effect of institutional ownership as well as the influence of home country institutional environment. The third section discusses the results regarding the impact of state ownership and international diversification on the SMNE's performance before the summary.

The State Multinational as a Hybrid Organizational Form

Chapter II clarifies key features of my unit of analysis—the state multinational. The state multinational has two parents—the SOE and the MNE. Literature has acknowledged that the SOE and the MNE has different key features as organizational forms as shown in the comparison in Chapter II. The state multinational has its own development path along several decades and experienced different economic and political periods. While previous studies investigated old-style SMNEs (e.g., Anastassopoulos et al., 1987; Mazzolini, 1980; Negandhi et al., 1986a), this present study examines new-styles SMNEs' development and evolution.

Compared to private MNEs, new-style SMNEs are less profit oriented (goals), confront a higher level of corporate governance complexity, have a lower level of

autonomy in establishing organizational structure, and experience a lower level of uncertainty. Moreover, because of the internal and external complexity, SMNEs have more difficulty in making strategic decisions on corporate strategies and organizational changes, leading less efficient outcomes. I conclude the state multinational as a hybrid organizational form, having key features different from both parents (the SOE and the MNE). Therefore, my propositions enrich organization theory by adding new content to organizational forms.

The Impact of State Ownership on International Diversification

Chapter III proposes that state ownership is non-linearly related to the state multinational's international diversification. The higher the state ownership in an SMNE, the higher the level of international diversification until a threshold, after which the increase in state ownership hinders the SMNE's international diversification. By examining the sample of listed SMNEs, these arguments receive overall support in the current study. My study shows that an SMNE can achieve a high level of international diversification at a moderate level of state ownership, but a higher control from the government may weaken the firm's internationalization. However, the results of the three-year sample are stronger than those of the seven-year sample. For the seven-year sample (2000-2007), state ownership only has significant impact on the breadth of international diversification, while for the three-year sample (2004-2007), state ownership significantly influences both dimensions (depth and breadth) of international diversification. Such difference may suggest that the SMNE has gradually changed its

goals to be more profit-oriented and thus invests in international expansion for profitability, which supports my arguments in terms of the influence of changes in the global environment on the development of the SMNE.

Chapter III also proposes that institutional ownership moderates the state ownership-international diversification relationship in such a way that the higher the percentage of institutional ownership, the stronger the relationship between state ownership and the SMNE's international diversification. Data employed in this study (the three-year sample and the seven-year sample) provide strong support for these arguments. Institutional ownership is one of mechanisms to monitor and control managers for effective corporate governance according to the agency theory literature (Dalton et al., 2008). Because institutional investors pursue investment returns and encourage international expansion (Tihanyi et al., 2003), the involvement of institutional ownership may be able to mitigate the negative effect of state ownership on the SMNE's international diversification. The results of the seven-year sample (significant on both dimensions of international diversification) are stronger than those of the three-year sample (significant only on the breadth of international diversification). The difference suggests that institutional investors may have different orientations in the short term and in the long term to select their investment portfolio in terms of international expansion. I do not further identify different types of institutional investors and their interests in international expansion, but such results provide evidence to support the argument proposed by Tihanyi et al. (2003) that different types of institutional investors may have different purposes when investing in MNEs. Overall, my findings support my arguments

and the agency theory literature. Thus, this study introduces state ownership into the international context, contributing to the agency theory literature by making agency theory more generalizable to different types of investors and to different contextual situations.

The influence of home country institutional environment is also considered when examining the above relationships. Chapter III proposes that the state ownership—international diversification relationship will be stronger for SMNEs in developing and emerging countries than those in developed countries. Developed countries mainly have well-established institutions while institutional voids exist in developing and emerging countries, resulting in difference of SMNEs for government support and the substitution of institutions by government support. Data in the three-year sample provide stronger support (both dimensions of international diversification receives support) to the influence of home country institutional environment on the proposed relationship than data in the seven-year sample (only the breadth of international diversification receives support). Thus, we see the significant impact of institutional environment on the state ownership—international diversification relationship as well as improvement in the institutional environments during the dramatic changes in the global environment.

Moreover, regarding the moderator effect of institutional ownership, the relationship is stronger in developed countries than in developing and emerging countries. Data employed in this study (the three-year sample and the seven-year sample) provide strong support for these arguments. Although for the seven year sample, the relationship is stronger only on the depth of international diversification, the moderation

effect of institutional ownership is significant on both subsamples. These findings give additional evidence on the function of institutional ownership as an effective mechanism to help improve the quality of corporate governance. Such findings also tell us that institutional investors can function better in a more established institutional environment than in a less established institutional environment.

Consideration of home country institutional environments on the state ownership—international diversification relationship enriches our understanding of institutions. With different levels of institutional environment, both state ownership and institutional investors function differently to influence an SMNE's international strategies. My findings contribute to the literature on home country institutional analysis.

The Impact of State Ownership and International Diversification on Firm Performance

Further hypotheses are proposed on the relationship between state ownership and the SMNE's performance and the relationship between international diversification and the SMNE's performance. First, the relationship between state ownership and performance is non linear, considering both the positive effect of state ownership and the negative influence of state ownership on the SMNE's performance. By examining the sample on three measures of firm performance (Tobin's q, ROA and ROS), these arguments receive overall support in the present study. For ROS, the relationship is marginally significant. For ROA, the relationship is only marginally significant for the

three-year sample, and not supported at all for the seven-year sample. For Tobin's q , the relationship is not significant for the three-year sample, and supported for the seven-year sample.

Second, I propose that the higher the level of international diversification, the higher the SMNE's performance. Data employed in the present study provide overall support. For the accounting-based measures, the proposed relationship receives support for both the three-year sample and the seven-year sample. However, for the three-year sample, the market-based measure does not receive support, while for the seven-year sample, only breadth of international diversification significantly influences the SMNE's Tobin's q . Compared to the state ownership-international diversification relationship, the weaker results on the relationship with the SMNE's performance provides evidence that the state may not pursue profits when it involves in the SMNE's corporate governance and operations.

Lastly, the results of the mediation effect answers the question that how the state influences an SMNE's performance; that is, the state monitors and affects the management through concentrated ownership, and the management makes international strategies to affect firm performance. The results provide support for the traditional steps of testing the mediational relationship. Only if the three steps are satisfied, we can suggest the existence of the mediational relationship. For instance, for the three-year sample, because the relationship between international diversification and Tobin's q and that between state ownership and Tobin's q are not significant, I do not find significance on the mediation effect of international diversification on the state ownership—Tobin's q

relationship. For the seven-year sample, because the relationship between state ownership and ROA is not significant, I do not find significance on the mediation effect of international diversification on the state ownership—ROA relationship. Moreover, for ROS, the mediational relationship is supported for the three-year sample and the seven-year sample. For ROA, partial support (Depth) is found in the three-year sample, while for Tobin's q, partial support (Breadth) is found in the seven-year sample.

The results of the mediation effect of international diversification on the state ownership — performance relationship suggest that international strategies act as mediators. In other words, the state monitors and controls top management team of SMNEs. Managers make strategic decisions on international expansion. Through such strategic implementation, the influence of state ownership on firm performance is realized. Therefore, my findings contribute to the agency theory literature by providing support on the input-process-outcome framework.

Summary

This chapter discusses the theoretical propositions regarding the key features of the SMNE as a hybrid organizational form and the empirical evidence regarding the impact of state ownership on the SMNE's international diversification and firm performance. Through the comparison of the SOE and the MNE as organizational forms, I identify the differences between these two and suggest that when compared to the MNE, the new-style SMNE has its own features as a hybrid organizational form that is different from its parents.

My empirical findings suggest that the existence of state ownership of SMNEs influences the level of international diversification and firm performance. Moreover, institutional ownership functions as an effective mechanism to improve the quality of corporate governance of SMNEs. In addition, home country institutional environment significantly moderates the relationship between state ownership and international diversification.

Further, the results on the influence of state ownership on firm performance show that the relationships are not as strong as those on the influence of state ownership and the SMNE's international diversification. However, support is found on the state ownership—performance relationship as well as the international diversification—performance relationship, thus providing evidence of a mediation effect of international strategies.

CHAPTER VII

CONCLUSIONS, IMPLICATIONS, AND LIMITATIONS

This concluding chapter summarizes the theoretical and empirical evidence of the present study, points out its implications for future research on SMNEs, and discusses limitations. I also discuss implications for managers to guide their practice as suggested by my findings. I conclude this chapter by presenting limitations of this study.

Conclusions

Great changes in the global economy such as globalization, collaboration, and changes in home country institutional environments have brought dramatic changes to the development of SMNEs.

The state multinational in the current global environment still has characteristics derived from its parents (the SOE and the MNE). However, due to global environment changes, the state multinational has also changed in terms of its key features as a hybrid organizational form. My arguments suggest that, when generally compared with private MNEs, SMNEs confront a higher level of corporate governance complexity, have a lower level of autonomy in establishing their organizational structures, face a lower level of uncertainty, and have more difficulty in making strategies and organizational changes.

One of the main worries in the early literature on this topic has been that state multinationals will have divided loyalties (profit maximization and state goals) and engage in activities that non-state-owned MNEs would not. Thus, this study is an attempt to examine how corporate governance of SMNEs affects international activities

and firm performance in the current global environment. In other words, I attempt to investigate how state ownership influences international diversification and firm performance of new-style SMNEs, using the theoretical perspective of corporate governance.

My findings show a relationship between state ownership and an SMNE's international strategies, thereby extending agency theory through the incorporation of a new type of investor and complementing agency theory by introducing the concept of state ownership to an international context. Results of this study suggest that state shareholders will support the international expansion of SMNEs in terms of financing, personnel and policies. However, when state ownership surpasses a threshold (state ownership=26% for the three-year sample; 33% for the seven-year sample), agency costs become dominant and then negatively influence the SMNE's level of international expansion.

Moreover, as one type of corporate governance mechanism, institutional ownership benefits corporate governance through more efficient control of management (Hitt et al., 2006). My findings suggest that different levels of institutional ownership have different degrees of influence on the relationship between state ownership and an SMNE's international strategies. When the percentage of institutional ownership is low, institutional investors may not function well as expected; thus, the influence of state ownership is weaker. In contrast, with a high level of institutional ownership, those investors have both the incentive and power to monitor management (Shleifer & Vishny, 1986), whatever its type (Tihanyi et al., 2003). Thus, the relationship between state

ownership and SMNEs' international diversification is stronger.

Furthermore, our results suggest a positive relationship between the level of international diversification and firm performance, which provides support to the suggestion that the international diversification—performance relationship is mixed and affected by the context based on the review on previous studies (Hitt et al., 2006). For SMNEs, on one hand, they enjoy the benefits of international diversification (Lu & Beamish, 2004). On the other hand, due to their new corporate structure in the new global environment, the negative influence of internationalization may not be prominent enough to significantly mitigate these benefits.

In addition, the mediational effect of international diversification on the relationship between state ownership and firm performance strengthens my arguments on SMNE's corporate governance issue. The agency theory literature examines the impact of ownership structure on performance (e.g., Jensen & Meckling, 1976). However, such effects on performance are through the strategies made by the management team, since outsider ownership (such as state and institutional ownership) only controls management (Dalton et al., 2003). Thus, my results provide support to the mediational relationship that state ownership influences firm performance through SMNEs' international strategies. The mediational effect of international diversification suggests a way to open the “black box” between equity ownership and firm performance, complementing agency theory on the equity-performance relationship.

Finally, my findings give strong support to the influence of home country institutional environments on the proposed relationships in Chapter III. In developed

countries, the institutional environment is well established. In contrast, in developing and emerging countries, institutional voids exist, which makes state ownership substitute for needed institutions (Valeer & Schrage, 2009). Thus, the proposed relationships between state ownership and international diversification should and do differ in different institutional environments. My empirical results give strong support for the proposed hypotheses.

Since my sample includes a variety of countries in Europe, Asia, Africa, and America, I conclude that my results show significant commonality of the effects of state ownership as well as the moderating effects of institutional ownership on an SMNE's international strategies and firm performance. Therefore, my findings present some solid evidence on how new-style SMNEs around the world expand internationally.

Overall, the findings from the present study conclude that (1) the new-style SMNE shares some characteristics from its parents (the SOE and the MNE), but has differences from both, which makes the new-style SMNE a unique and hybrid organizational form; (2) state ownership does influence the SMNE's international diversification and firm performance non linearly and the optimum level of state ownership exists; (3) institutional ownership is an effective mechanism to improve the quality of corporate governance of SMNEs; (4) institutional environment of the home country matters; i.e., the proposed relationships between state ownership and SMNEs' international diversification will be strengthened or weakened upon different levels of home country institutional environments.

Implications

Implications for Managerial Practice

This study has managerial implications for managers in SMNEs in order to be competent in international markets. First, in order to better manage the SMNE and then achieve a higher performance, the level of state ownership should be carefully controlled. Although the existence of such type of ownership can bring benefits for the development of SMNEs, its negative effects, especially on corporate governance, should not be ignored.

Second, the positive monitoring effect of institutional investors should be acknowledged. Given the moderation influence of such type of ownership, managers of SMNEs should consider the involvement of institutional ownership based on the level of the firm's state ownership. Thus, I concluded that a balanced ownership structure can improve an SMNE's international expansion and firm performance.

Third, managers of SMNEs should acknowledge the important influence of equity owners on international strategies and firm performance. Although owners may not directly interfere with management and influence strategic making and firm performance, they can exercise their voices through their concentrated ownership (Dalton et al., 2008).

Fourth, managers of SMNEs should also consider their home country institutional environment when they make strategic decisions on international expansion. The institutional environment will influence the effect of state ownership on SMNEs' international strategies and firm performance. In developed countries, the institutional

environment is well established. Support from government in developed countries may not be as important as that in developing and emerging countries. Managers should realize the level of institutional environment of their home country and understand the influence of state ownership on corporate strategies and firm performance before making strategic decisions on international expansion.

Implications for Future Research

Given the interesting findings of this study and our specific sample (state multinationals; SMNEs), I acknowledge promising research directions to further complement the existing literature. First, the SMNE-state relationship in the 21st century may have changed greatly from that in the 20th century. Considering the effect of globalization and new forms of global competition, states would compete for wealth accordingly, and thus governments may negotiate with foreign MNEs for alliances and cooperation through SMNEs (Dunning, 1995). Previous research suggests that in order to increase its efficiency, the SMNE needs to have autonomy, keeping home governments from diverting the enterprise from its business purpose (e.g. Lamont, 1979). Meanwhile, the state needs to realize its national objectives through its control of those state multinationals (Stopford et al., 1991). Thus, there is always a potential control issue between the state and the SMNEs.

The trade-off between opportunities to increase the performance of state enterprises and the need to control them is the most important decision that governments should make; that is, whether, when and how intervene (Stopford et al., 1991). For instance, the less developed a national economy and the less extent to which

the economy is market oriented, the more likely the state will intervene in the operations of SMNEs through its shareholding in those firms (Anastassopoulos et al., 1987). In the new global environment, whether SMNEs are able to succeed in the international markets depends on how they avoid tight government control and take advantage of government support while keeping autonomy to operate in foreign markets for profits. Therefore, it is worthwhile to further study the SMNE-state relationship in the new international environment and how such relationship influences the SMNE's international strategy and activities.

Second, previous literature suggested that strategy analysis would help understand SOE performance in the global competition with private MNEs (Thomas, 1986). For instance, to keep sustainable growth and improve their performance through international expansion, SMNEs should proactively participate in global competition, recognize their role in the global market and in achieving the national goals, and integrate localization with their global strategies (Stopford et al., 1991). Thus, when competing with private MNEs in the global markets, corporate strategies of SMNEs influence their performance.

In the new international environment, questions remain whether SMNEs face similar situations with private MNEs when competing in the global markets, and how SMNEs will make different international strategies to cope with competitive situations. Thus, comparison of strategic differences between SMNEs and private MNEs will complement the literature on strategic management of MNEs by incorporating a unique ownership type — state ownership.

Third, organizational characteristics of SMNEs, such as organizational structure and corporate governance, affect SMNEs' competitiveness and performance. For instance, Anastassopoulos et al. (1987) argued that the traditional concentrated structure of an SOE is an obstacle to the implementation of its international strategies because of its internal bureaucratic behaviors and its national objectives and social responsibilities, while an SOE with a multinational oriented structure may help realize its international targets. Thus, when competing with private MNEs in the global markets, organizational characteristics of SMNEs influence their firm performance.

In the new international environment, questions remain that how SMNEs shape organizational characteristics, such as how to adopt an organizational structure to cope with such competitive situations, since, organizational structure of SMNEs may affect strategic implications of their goals, both long term and short term. Thus, organizational characteristics of SMNEs in order to succeed in the global competition should be studied. I have already proposed propositions on SMNEs' organizational characteristics based on the comparison between new-style SMNEs and private MNEs. Therefore, empirical tests (such as survey) of my propositions may be conducted and findings of such studies will further complement organization theory.

Fourth, as explained in Chapter II, old-style SMNEs have characteristics that are close to SOEs, which are generally operating in domestic markets. However, in the new global environment, new-style SMNEs move towards MNEs in terms of key features of an organizational form. I expect the same trend for SMNEs in terms of their strategies and performance. I already suggest that I will conduct post-dissertation research on the

comparison between state controlled MNEs and non-MNEs. Therefore, future research can compare new-style SMNEs with domestic state owned or controlled enterprises in terms of their corporate strategies, organizational characteristics and firm performance.

Fifth, as already discussed, home country and host country environments influence the development of MNEs (OECD, 2002; UNCTAD, 2007), including SMNEs. Previous research suggests that home and host country institutions have different impacts on SMNE development. For instance, in 1970s, regulations restricted both inward and outward FDI. Besides the examples discussed earlier about the restriction on outward FDI in Brazil and India (Wells, 1983), countries such as Mexico restricted inward FDI in material industries such as automobiles and petroleum (Eden, 1996).

In the new international environment, governments in either host or home countries endeavor to improve the country environment. For instance, recent research suggests improvement of the host country environment for regulation and legal systems, infrastructure, and market structure (e.g. Galan et al., 2007; Flores & Arguilera, 2007) attracts inward FDI and improve national competitive capabilities. My study has considered the influence of the home country environment. However, I did not go further and consider detailed aspects of home country environment, such as political stability and the degree of openness, and their impacts on SMNEs. Thus, further studies on the individual influence of different factors of home country institutional environments on SMNE strategies and performance would give high added value and insights to the understanding and insights on SMNEs.

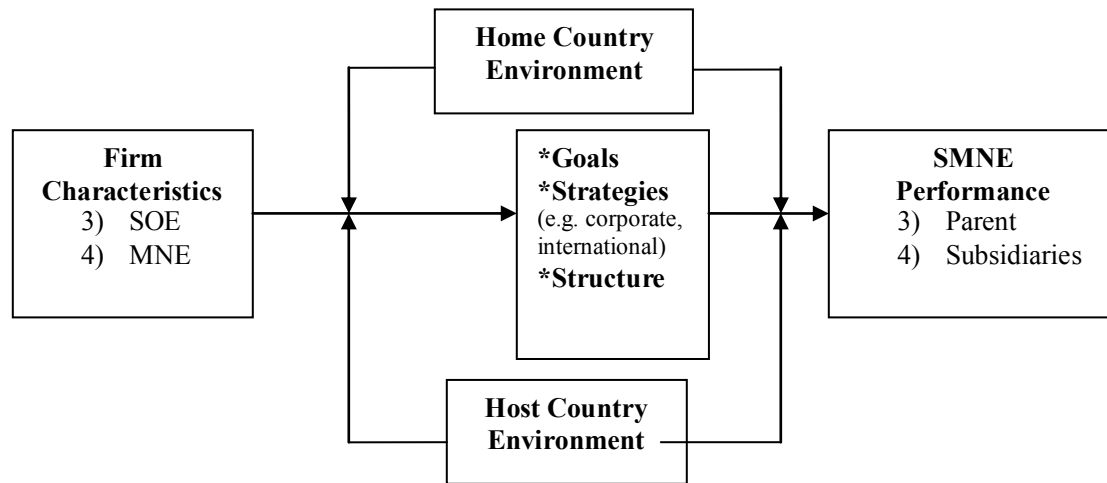
Sixth, previous literature argues that subsidiaries of MNEs generally act as transferees, and as resource mobilizers, but they manifest themselves in different ways in advanced and less-developed countries (Vernon, 1971). Moreover, subsidiaries of SOEs confront more complex situations in host countries in terms of markets, capital and technology, due to the simultaneous economic and political choices (Aharoni & Seidler 1986).

In the changing world markets, subsidiaries may have more flexibility and autonomy to function differently from their parents (Roth & O'Donnell, 1996). For instance, similar to the control between the state and the SMNE, the control of the subsidiaries by headquarters is critical to enable autonomy and avoid agency costs at the same time. Geringer and Hebert (1989) identify three dimensions of control: extent, focus and mechanisms (content-oriented, context-oriented, and process-oriented) in terms of joint venture management. These dimensions of control may also be applied to the management of subsidiaries when the top management team makes such strategic decisions. Therefore, there is great potential to examine the foreign subsidiaries of state multinationals in such perspectives as differences in strategies with parent firms, the headquarter-subsidiary agency relationships, and manifested control issues between headquarters and subsidiaries.

Based on the above analysis on future research, I propose that (Figure 7.1)

Performance=f (firm characteristics (e.g., relationship with states)+ home country environment+ host country environment+ strategies)

Figure 7.1.
Future Research Directions



In addition, there is a great potential to extend research on SMNEs in methodology. Previous studies have generally used case studies or descriptive examinations to explore divergent issues about SMNEs (e.g. Ramamurti, 1987; Vernon, 1979; Zif, 1983). For instance, based on a longitudinal study of four high technology firms in India and Brazil, Ramamurti (1987) examined factors that shaped their strategic behavior and competitive capabilities in international markets. However, with the emergence of large databases on ownership, shareholder and subsidiary information (e.g., Bureau van Dijk's ORBIS), it is now possible to empirically test research questions such as whether "divided loyalties" does lead to different decision-making in strategies, firm characteristics and firm performance, and their different impacts on home and host country environments.

Limitations

I realize that this study has limitations. First, I focused on listed state multinationals due to the data availability of the BVD database. There are more SMNEs, which are not listed, especially from developing and emerging countries. However, the database does not have enough information on unlisted companies, which force me not to include SMNEs. On the one hand, a broader range of samples will give more insights to answer my research questions. On the other hand, if more firm level data on SMNEs in more countries are available, I can generalize my results to a broader range of SMNEs. Future research may consider reframing my research questions and more broadly exploring agency problems of SMNEs based on a larger sample.

Second, because the format of financial information for companies in the banking industry is different from that for companies in other industries, I do not include SMNEs in the banking industry. However, the number of SMNEs in the industry is not small (over 100 in my case). Giving up those SMNEs may limit the generalizability of my results. Thus, future research should specifically conduct research on SMNEs in the banking industry. More interesting findings may come out by future research from this perspective.

Third, I conducted a longitudinal analysis using a three-year sample and a seven-year sample to explain my arguments since the database only contains comprehensive information of our interests after 2000. A longer time period will capture more characteristics of the SMNE during its several decades' development. For instance, if I had data with a longer time period, I may conduct a comparison between old-style and

new-style SMNEs to identify any differences between these two types of SMNEs. Future empirical research should endeavor to improve from this perspective if any database has firm-level data back to the 1990s, or even earlier.

Lastly, I consider country-level institutional environments in this study. However, in some countries, more than one level of institutional environments may be considered, such as regional level or province level in countries like China. Future empirical research should engage in improving the empirical context and making the empirical context more generalizable.

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APPENDIX A
COUNTRIES IN THE SAMPLE

Australia
Austria
Bahrain
Belgium
Brazil
Canada
China
Czech
Denmark
Egypt
Finland
France
Germany
Greece
India
Indonesia
Italy
Japan
Jordan
Kuwait
Luxembourg
Malaysia
Monaco
Netherlands
Norway
Oman
Philippine
Poland
Qatar
Saudi Arabia
Singapore
South Africa
Sweden
Switzerland
Taiwan
Thailand
The United Kingdom
United Arab Emirate
The United States
Venezuela

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